

ILLUSTRATED CATALOGUE

OF

APPARATUS & CHEMICAL PREPARATIONS

USED IN THE ART OF

PHOTOGRAPHY;

COMPRISING THE

DAGUERREOTYPE, CALOTYPE, WAXED PAPER,
ALBUMEN, COLLODION,
AND POSITIVE PAPER PROCESSES.

MANUFACTURED AND SOLD BY

BLAND & LONG,

Opticians,

PHILOSOPHICAL, PHOTOGRAPHICAL, & CHEMICAL INSTRUMENT MAKERS,

AND

OPERATIVE CHEMISTS,

153, FLEET STREET, LONDON.

H. SILVERLOCK, PRINTER,
WARDROBE TERRACE, DOCTORS' COMMONS, LONDON.

P R E F A C E.

MESSRS. BLAND & LONG,

In submitting the following Catalogue of Instruments, Apparatus, and Chemical Preparations used in the beautiful Art of Photography, to the notice of Amateurs and Photographers in general, would take this opportunity of stating, that nearly the whole of the Apparatus therein described is manufactured on the premises, under their own immediate superintendence; thereby ensuring instruments with all the most recent improvements, and at very moderate prices.

They would further state that, for the better carrying out of experiments in Photography, and the testing of Photographic Lenses during the manufacture, they have erected a spacious Glass Room, in which every requisite for the illustration of the various processes, and trial of Lenses, will be found.

Purchasers of Apparatus, and others desiring information, will receive every instruction and explanation as to the manipulations and scientific principles involved in the various photographic processes, either by letter or personally, at the establishment, No. 153, FLEET STREET, LONDON.

Orders from abroad, which should be accompanied by an order for payment in London, executed in the best manner, and in the shortest possible time.

Merchants and Agents supplied on liberal Terms.

Catalogue

OF

PHOTOGRAPHIC APPARATUS, &c.

Messrs. BLAND & LONG would mention with due respect, that to obviate delay in the execution of orders received by post from those with whom they have not had the pleasure of being acquainted, it is requested that a remittance by post-office order or cheque, or a reference to some house in London, may accompany such commissions, a discount of five per cent. being allowed for cash on amounts above £5.

Orders from India or the Colonies must be accompanied by a remittance or order for payment in London; and it is particularly requested, that in order to prevent mistakes, orders sent through Agents will be explicit as to the name of the house from which the instruments are to be procured; an intimation of the locality will also be a guide to the selection and manufacture of such goods as will not be injuriously acted upon by the climate.

LENSES.

Single Achromatic Lenses, unmounted, suitable for taking views by Calotype or Collodion processes:—

	Diameter.	Focus.	£	s.	d.
No. 1.	1 $\frac{1}{4}$ inches	4 to 6 inches	0	6	0
2.	1 $\frac{1}{2}$ "	6 to 7 "	0	8	0
3.	1 $\frac{3}{4}$ "	6 to 8 "	0	10	0
4.	2 "	8 to 10 "	0	14	0
5.	2 $\frac{1}{2}$ "	8 to 10 "	0	18	0
6.	2 $\frac{5}{8}$ "	12 to 14 "	1	6	0
7.	3 "	12 to 15 "	1	16	0
8.	3 $\frac{1}{2}$ "	12 to 16 "	2	10	0
9.	4 "	16 to 20 "	3	10	0

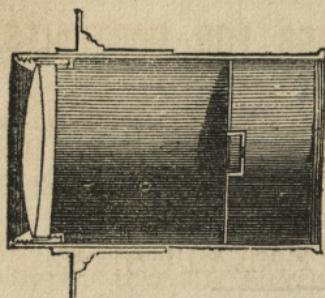


Fig. 1.

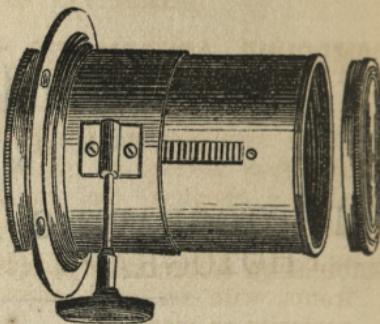


Fig. 2.

Single Achromatic Lenses, mounted in handsome brass fronts,
with rings for adaptation to Camera:—

Diameter.	Simple sliding tube. (Fig. 1.)	For Pictures.			Rack and Pinion. (Fig. 2.)		
		£	s.	d.	£	s.	d.
No. 1. 1 $\frac{1}{4}$ inches	0 16 0	5 in. by 4 in.			1	1	0
2.	1 $\frac{1}{2}$ "	1	1	0	1	7	0
3.	1 $\frac{3}{4}$ "	1	5	0	1	12	0
4.	2 "	1	12	6	2	2	0
5.	2 $\frac{1}{4}$ "	1	15	0	2	7	6
6.	2 $\frac{5}{8}$ "	2	5	0	2	15	0
7.	3 "	3	15	0	4	10	0
8.	3 $\frac{1}{2}$ "	4	14	6	6	0	0
9.	4 "	6	10	0	7	7	0

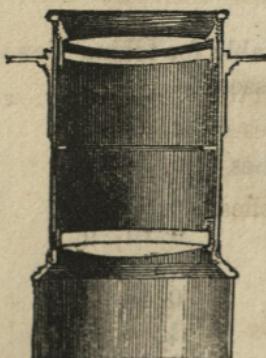


Fig. 3.

Sectional view of Compound
Achromatic Lens.

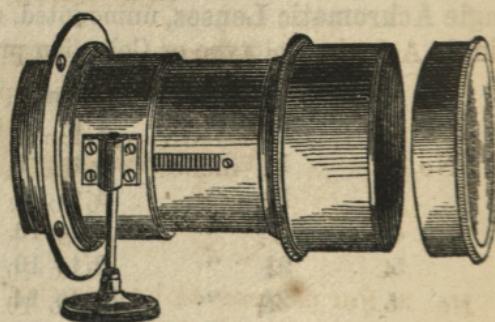


Fig. 4.

BLAND & LONG'S
COMPOUND ACHROMATIC LENSES FOR PORTRAITS.

These combinations are particularly recommended from the qualities they possess of giving a flat field, and having their optical and chemical foci coincident, producing an image on the sensitive surface in an extremely short space of time.

Combination Achromatic Lenses, mounted in handsome brass fronts, with rackwork adjustment, and adapted for either portraits or views:—

		£ . . d.
No. 1.	For pictures, $4\frac{1}{4}$ by $3\frac{1}{4}$ inches (Fig. 4.)	3 13 6
2.	“ arranged for views, 6 by 5 in., and portraits, $4\frac{1}{4}$ by $3\frac{1}{4}$ in.	4 0 0
3.	“ 5 by 4 in.	4 14 6
4.	“ arranged for views, 7 by 6 in., and portraits, 5 by 4 in.	5 5 0
5.	“ 6 by 5 in.	7 7 0
6.	“ arranged for views, 9 by 7 in., and portraits, 6 by 5 in.	8 0 0
7.	“ $8\frac{1}{2}$ by $6\frac{1}{2}$ in.	15 15 0
8.	“ arranged for views, 12 by 10 in., and portraits, $8\frac{1}{2}$ by $6\frac{1}{2}$ in.	16 16 0

The arrangement of the above Lenses for views, consists in the removal of one lens in the combination, and placing the other in a different position in the sliding tube, with the requisite stops or diaphragms for regulating the amount of light.

COMPOUND ACHROMATIC FOREIGN LENSES FOR PORTRAITS.

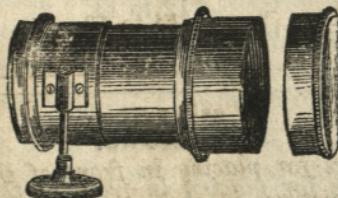


Fig. 5.

		£ . . d.
No. 1.	For pictures, $4\frac{1}{4}$ by $3\frac{1}{4}$ inches (Fig. 5.)	1 7 6
2.	“ $6\frac{1}{2}$ by $4\frac{3}{4}$ “	3 10 0
3.	“ $8\frac{1}{2}$ by $6\frac{1}{2}$ “	8 0 0

BLAND & LONG'S ACHROMATIC LANDSCAPE LENSES.

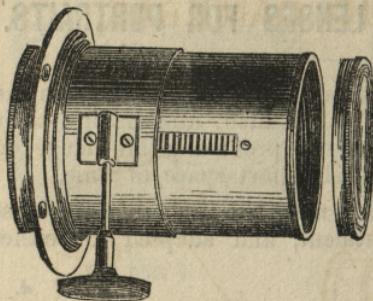


Fig. 6.

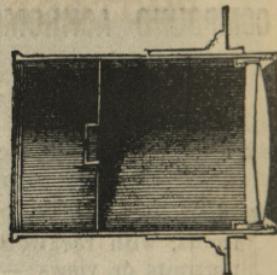


Fig. 7.

Section of Landscape Lens.

Messrs. B. & L. feel great confidence in recommending these Lenses to amateurs and professional photographers, as they give a perfectly flat field, and from their quick action are particularly adapted for taking views where great rapidity is a desideratum.

			£ s. d.
No. 1.	1 $\frac{3}{4}$ in. diameter,	rackwork adjustment, for pictures	6 by 5 in. 2 12 6
2.	2 $\frac{1}{4}$	" " " 7 by 6 in.	3 10 0
3.	3	" (Fig. 6.) 10 by 8 in.	5 10 0
4.	3 $\frac{1}{2}$	" " 12 by 10 in.	6 10 0
5.	4	" " 15 by 12 in.	8 8 0

MENISCUS LENSES.

	Diameter.	Focus.	£ s. d.
No. 1.	1 $\frac{1}{4}$ inches	8 to 10 inches	0 4 0
2.	2 "	9 to 10 "	0 5 0
3.	2 $\frac{3}{4}$ "	10 to 12 "	0 7 6
4.	3 "	12 to 14 "	0 9 0
5.	3 $\frac{1}{2}$ "	14 to 16 "	0 10 6

MIRRORS.

Parallel Mirrors for placing in front of the Lenses, to take pictures in their true position

For $\frac{1}{2}$ plate Lens	£ s. d.
	$\frac{1}{2}$	"	.	.	2 12 6
Prisms adapted for same purpose, from					3 3 0

PHOTOGRAPHIC CAMERAS,

ADAPTED FOR VIEWS ON GLASS OR PAPER.

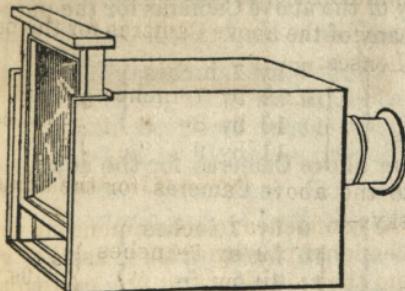


Fig. 8.

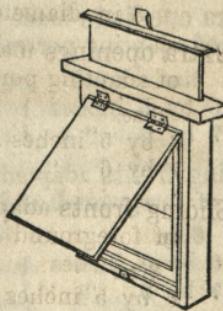


Fig. 9.

RIGID CAMERAS.

	£ s. d.
No. 1. Mahogany French-polished Camera, (Fig. 8,) with one single back, (Fig. 9,) for either paper or glass, and ground focussing glass, for pictures 6 by 5 in.	0 18 6
No. 2. Ditto, ditto, same as above, for either glass or paper process, fitted with single Achromatic lens, $1\frac{1}{2}$ inches diameter, in brass sliding tube	2 5 0
No. 3. Mahogany Camera, French-polished, with one back, for either glass or paper process, ground focussing glass, &c., for pictures 7 by 6 inches	1 2 6
No. 4. Ditto, ditto, fitted with single Achromatic lens, $2\frac{1}{2}$ in. diameter, mounted in brass sliding tube	1 17 6
No. 5. Mahogany Camera, French-polished, with one back, for either glass or paper process, ground glass for focussing, for pictures 9 by 7 inches	1 11 6
No. 6. Ditto, ditto, fitted with single Achromatic lens, $2\frac{5}{8}$ in. diameter, mounted in brass sliding tube	3 16 6
No. 7. Mahogany Camera, French polished, with one back, for either paper or glass process, ground focussing glass, for pictures 10 by 8 inches	1 15 0
No. 8. Mahogany Camera, fitted with single Achromatic lens, 3 inches diameter, mounted in brass sliding tube, for pictures 10 by 8 in. . . .	5 10 0

	£ s. d.
No. 9. Mahogany Camera, French-polished, with one back, for paper or glass process, ground focussing glass, for pictures 11 by 9 inches	1 17 6
No. 10. Ditto, ditto, fitted with single Achromatic lens, 3 in. diameter, mounted in brass sliding tube	6 0 0

Extra openings made in any of the above Cameras for the purpose of adapting portrait Lenses:—

Size.		9 by 7 inches	10 by 8 "	11 by 9 "	
6 by 5 inches	}	5s.	10 by 8 "	}	6s. 6d.
7 by 6 " "	}		11 by 9 "	}	

Sliding fronts adapted to the above Cameras for the adjustment of foreground and sky:—

Size.		9 by 7 inches	10 by 8 "	11 by 9 "	
6 by 5 inches	}	6s.	10 by 8 "	}	9s.
7 by 6 " "	}		11 by 9 "	}	

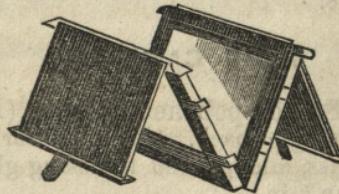


Fig. 10.

Double Backs for paper fitted to above Cameras:—(Fig. 10.)

7 by 6 inches .	£1 0s.	10 by 8 inches .	£1 10s.
9 by 7 " .	£1 5s.	11 by 9 " .	£1 15s.

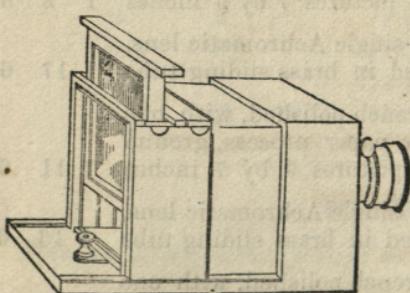


Fig. 11.

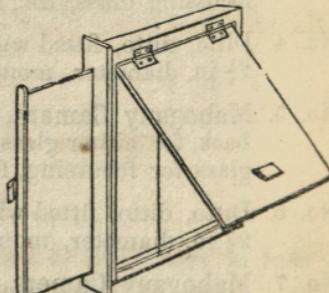


Fig. 12.

SLIDING BODY OR EXPANDING CAMERAS,

Adapted for portraits by the Collodion or Daguerreotype processes

		£ s. d.
No. 1.	Sliding body Camera, (Fig. 11) of French-polished mahogany, with one single (Fig. 12) back 5 inches square, with two loose frames for plates 4½ by 3½ inches, and 3½ by 2½ inches	1 7 6
No. 2.	Ditto, ditto, fitted with Achromatic portrait lens, of best construction	5 0 0
No. 3.	Ditto, ditto, fitted with Foreign lens	2 15 0
No. 4.	Mahogany sliding body Camera, French-polished, with one single back 6 inches square, with two loose frames for plates 5 by 4 inches, and 4½ by 3½ inches, ground focussing glass, &c.	1 15 6
No. 5.	Ditto, ditto, fitted with compound Achromatic portrait lens, of best construction	7 0 0
No. 6.	Ditto, ditto, fitted with foreign lens	5 5 0
No. 7.	Mahogany sliding body Camera, French-polished, single back 8 inches square, with two loose frames for plates 6 by 5 inches, and 5 by 4 inches, ground focussing glass, &c	2 10 0
No. 8.	Ditto, ditto, fitted with compound Achromatic lens, for portraits, of best construction	9 17 0
No. 9.	Ditto, ditto, fitted with Foreign lens	6 0 0
No. 10.	Mahogany sliding body Camera, French-polished, with one single back 10 inches square, with three loose frames for plates 8½ by 6½ inches, 6 by 5 inches, and 5 by 4 inches, ground focussing glass, &c.	3 10 0
No. 11.	Ditto, ditto, fitted with compound Achromatic portrait lens, of best construction	19 5 0
No. 12.	Ditto, ditto, fitted with Foreign lens	11 10 0

FRENCH CAMERAS IN WALNUT,

UNPOLISHED.

		£ s. d.
No. 1.	½-plate Walnut Camera	0 13 6
No. 2.	Ditto, fitted with compound lens, for portraits	2 2 0
No. 3.	½-plate Walnut Camera	0 18 0
No. 4.	Ditto, fitted with compound lens, for portraits	4 8 0
No. 5.	Whole plate Walnut Camera	1 12 6
No. 6.	Ditto, fitted with compound lens, for portraits	9 12 6

FRENCH WALNUT WOOD CAMERAS, SQUARE.

		£ s. d.
No. 1.	$\frac{1}{4}$ -plate square Camera, walnut wood	0 18 6
No. 2.	Ditto, ditto, fitted with compound Achromatic lens, for portraits up to $4\frac{1}{4}$ by $3\frac{1}{4}$ inches	2 6 0
No. 3.	$\frac{1}{2}$ -plate walnut Camera, square	1 12 0
No. 4.	$\frac{1}{2}$ -plate walnut Camera, square, fitted with compound Achromatic lens, for portraits up to $6\frac{1}{2}$ by $4\frac{1}{4}$ inches	5 2 0
No. 5.	Whole plate square walnut Camera	2 2 0
No. 6.	Ditto, ditto, fitted with compound Achromatic lens, for portraits up to $8\frac{1}{2}$ by $6\frac{1}{2}$ inches	10 0 0

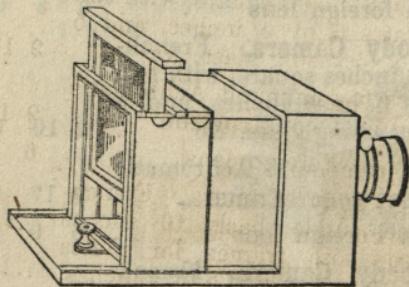


Fig. 13.

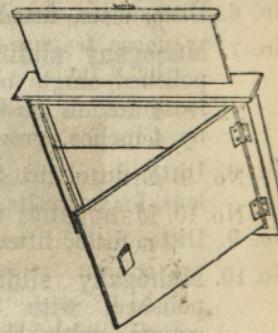


Fig. 14.

SLIDING BODY OR EXPANDING CAMERAS,

Adapted for portraits and views by the Collodion and Calotype, or Waxed-paper processes.—(Fig. 13 & 14.)

		£ s. d.
No. 1.	Mahogany sliding body Camera, French-polished, with two single (Fig 14) dark slides for plates and paper, suitable for portraits $4\frac{1}{4}$ by $3\frac{1}{4}$ inches, and views 6 by 5 inches	2 6 0
No. 2.	Ditto, ditto, fitted with compound Achromatic lens, of BEST CONSTRUCTION, adapted for either portraits $4\frac{1}{4}$ by $3\frac{1}{4}$ inches, or views 6 by 5 inches	6 6 0
No. 3.	Mahogany sliding body Camera, with two single dark slides for plates and paper, suitable for portraits 5 by 4 inches, and views 7 by 6 inches	2 16 0
No. 4.	Ditto, ditto, fitted with compound Achromatic lens, of BEST CONSTRUCTION, adapted for either portraits 5 by 4 inches, or views 7 by 6 inches	8 0 0

	£ s. d.
No. 5. Mahogany sliding body Camera, French-polished, with two single dark slides for plates and paper, suitable for portraits 6 by 5 inches, and views 9 by 7 inches	3 13 6
No. 6. Ditto, ditto, fitted with compound Achromatic lens, of <i>BEST CONSTRUCTION</i> , adapted for either portraits 6 by 5 inches, and views 9 by 7 inches	11 13 6
No. 7. Mahogany sliding body Camera, French-polished, with two single dark slides for plates and paper, suitable for portraits $8\frac{1}{2}$ by $6\frac{1}{2}$ inches, and views 11 by 9 inches	5 10 0
No. 8. Ditto, ditto, fitted with compound Achromatic lens, of <i>best construction</i> , adapted for portraits $8\frac{1}{2}$ by $6\frac{1}{2}$ inches, and views 11 by 9 inches	22 6 0

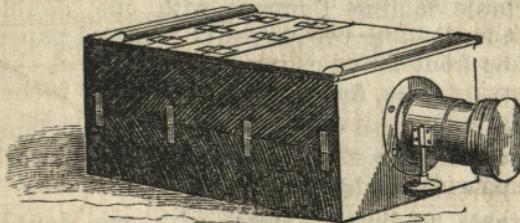


Fig. 15.

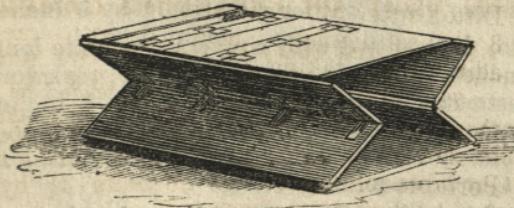


Fig. 16.

BLAND & LONG'S PORTABLE FOLDING CAMERAS.

This form of Camera will be found of great convenience where portability is a desideratum, and consequently most efficient for the purposes of the tourist and traveller.

These Instruments are of the best workmanship, and are so constructed as not to warp nor lose their figure when exposed to the sun and weather in any climate.

		£ s. d.
No. 1.	Portable folding Camera , (<i>Figs. 15, 16.</i>) of best Spanish mahogany, French-polished, with one double back for holding two pieces of prepared paper, sliding front for adjusting foreground and sky, focussing glass, &c., for pictures 7 by 6 inches	4 0 0
No. 2.	Ditto, ditto, fitted with single Achromatic lens, mounted in brass sliding tube, for pictures 7 by 6 inches	5 15 0
No. 3.	Portable folding Camera , with one double back for holding two pieces of prepared paper, sliding front for adjusting foreground and sky, focussing glass, &c., for pictures 9 by 7 inches	4 14 6
No. 4.	Ditto, ditto, fitted with single Achromatic lens, 2½ inches diameter, mounted in brass sliding tube, taking pictures 9 by 7 inches	6 19 6
No. 5.	Portable folding Camera , with one double back for holding two pieces of prepared paper, sliding front for adjusting foreground and sky, focussing glass, &c., for pictures 10 by 8 inches	6 0 0
No. 6.	Ditto, ditto, fitted with single Achromatic lens, 3 inches diameter, mounted with rackwork adjustment, taking pictures 10 by 8 inches	10 10 0
No. 7.	Portable folding Camera , with one double back for holding two pieces of prepared paper, sliding front for adjusting foreground and sky, focussing glass, &c., for pictures 11 by 9 inches	7 0 0
No. 8.	Ditto, ditto, fitted with single Achromatic lens, 3 inches diameter, mounted with rackwork adjustment, taking pictures 11 by 9 inches	11 10 0
	<i>This size is particularly recommended as taking the quarter sheet of waxed paper without cutting in the least to waste.</i>	
No. 9.	Portable folding Camera , with one double back for holding two pieces of prepared paper, sliding front for adjusting foreground and sky, focussing glass, &c., for pictures 12 by 10 inches	7 17 6
No. 10.	Ditto, ditto, fitted with single Achromatic lens, mounted with rackwork adjustment, producing pictures 12 by 10 inches	13 17 6
No. 11	Portable folding Camera , with one double back for holding two pieces of prepared paper, sliding front for adjusting foreground and sky, ground focussing glass, &c., for pictures 15 by 12 inches	10 0 0

	<i>£ s. d.</i>
No. 12. Portable Folding Camera, &c., fitted with single Achromatic lens, mounted in rackwork adjustment, for producing pictures 15 by 12 inches	17 7 0

Larger sizes to order

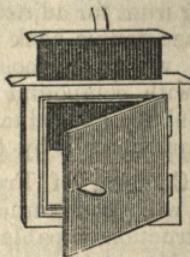


Fig. 17.

Single backs (*Fig. 17*) for Collodion fitted to the above Cameras with two loose frames:—

For 7 by 6 inches	£0 15 0	For 11 by 9 inches	£1 5 6
9 by 7 " "	0 18 0	12 by 10 " "	1 7 0
10 by 8 " "	1 2 6	15 by 12 " "	1 15 0

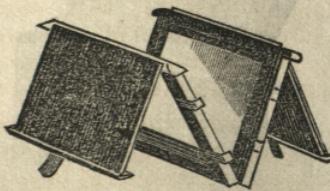


Fig. 18.

Extra double backs (*Fig. 18*) fitted to the above Cameras:—

For 7 by 6 inches	£1 0 0	For 11 by 9 inches	£1 15 0
9 by 7 " "	1 5 0	12 by 10 " "	2 0 0
10 by 8 " "	1 10 0	15 by 12 " "	2 15 0

In the Cameras detailed above there is an extra opening for short focus compound lens which can readily be adapted to any of them, the price varying with the size lens employed. (*See page 7.*)

Messrs. BLAND & LONG also fit their compound Achromatic lenses to these Cameras, which render them applicable for taking either portraits or views by merely altering the lens.

Bland & Long's portable folding Cameras, fitted with compound Achromatic lenses, in handsome brass mounting with rackwork adjustment, and capable of being altered for both portraits and views.

	£ s. d.
No. 1. Portable folding Camera, of French-polished mahogany, sliding front for adjustment of foreground and sky, one double back for paper and one single back, with two loose frames for Collodion, fitted with compound lens, of best construction, capable of producing portraits 5 by 4 inches, and views 7 by 6 inches .	9 0 0
No. 2. Portable folding Camera, of French-polished mahogany, fitted with compound Achromatic lens, of best construction, capable of producing portraits 6 by 5 inches, and views 9 by 7 inches	13 0 0
No. 3. Portable folding Camera, of French-polished mahogany, for producing portraits $8\frac{1}{2}$ by $6\frac{1}{2}$ inches, and views 12 by 10 inches .	26 0 0

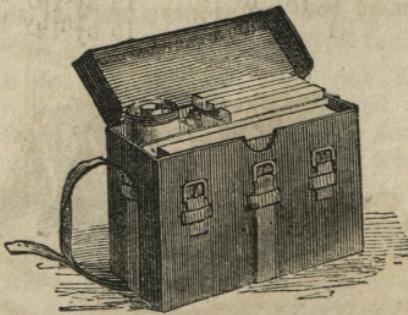


Fig. 19.

SOLID PATENT LEATHER SLING CASES,

For folding Cameras. (Fig. 19.)

	£ s. d.
No. 1. Solid leather sling Case, for containing Camera and lens, for pictures 7 by 6 inches	1 5 0
No. 2. Ditto, ditto, for pictures 9 by 7 inches	1 12 0
No. 3. Ditto, ditto, for pictures 12 by 10 inches	2 10 0
Leather sling Cases, for lenses only, 10s., 15s., 17s. 6d., and £1.	

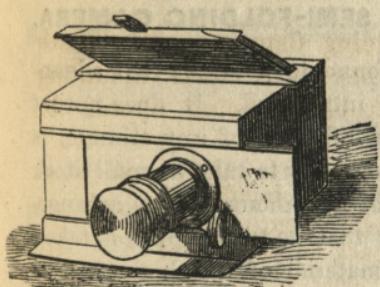


Fig. 20.

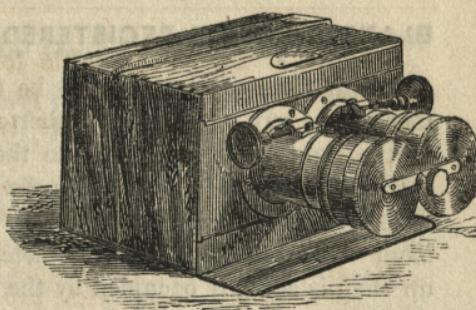


Fig. 21.

STEREOSCOPIC CAMERAS,

For producing either portraits or views suitable for the Stereoscope.

	£ s. d.
No. 1. Stereoscopic Camera, of most simple construction, fitted with compound Achromatic lens in sliding front, one single back for plates, ground focussing glass, &c. (Fig. 20.)	3 3 0
No. 2. Stereoscopic Camera, fitted with two compound Achromatic lenses of same focus, one single back for plates, ground focussing glass, &c. (Fig. 21.)	5 5 0

With this Camera both pictures are taken at the same instant.

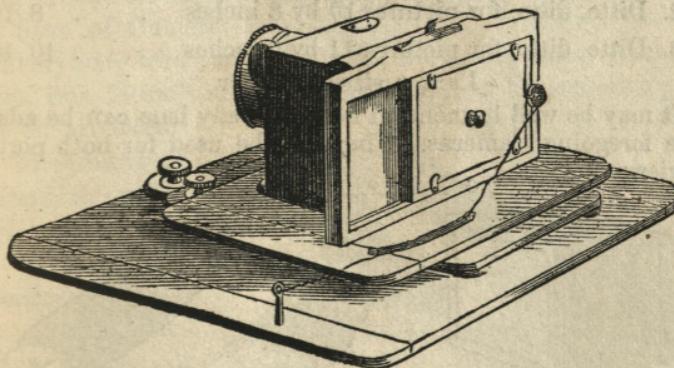


Fig. 22.

No. 3. Stereoscopic Camera, of best construction, mounted on boards, with parallel adjustments on Latimer Clarke's principle, with compound Achromatic lens, capable of taking either portraits or views (Fig. 22.)	. . . 6 0 0
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It is necessary to state that the pictures taken by Nos. 1 and 2, require to be reversed when they are mounted, in order to obtain the true stereoscopic effect.

BLAND & LONG'S REGISTERED SEMI-FOLDING CAMERA.

This form of Camera will be found to possess great advantages over any other form hitherto introduced. It does not let in the light when subjected to the influence of any climate, is extremely portable, and enables the operator to take a small stock of paper and chemicals to the scene of his labours. The arrangement of this Camera is so complete, that no more space is taken up than is actually occupied by the material of which the instrument is made: two double and one single backs are supplied with these Cameras, and a tray is arranged at the top to take the chemicals. Being made on the principle of the expanding Camera, they admit of being used with any lens, giving a great range of focal adjustment.

£ s. d.

No. 1. Bland and Long's Registered semi-folding Camera, consisting of solid body, folding sliding body, vertical and horizontal adjustment for foreground and sky, two double backs for paper process, one single back with two loose frames for glass plates, tray for holding chemicals, &c., with lock and handle, for pictures 9 by 7 inches and under	7	7	0
No. 2. Ditto, ditto, for pictures 10 by 8 inches	8	10	0
No. 3. Ditto, ditto, for pictures 11 by 9 inches	10	10	0

Larger sizes to order.

It may be well to mention here that any lens can be adapted to the foregoing Cameras. They can be used for both portraits and views.

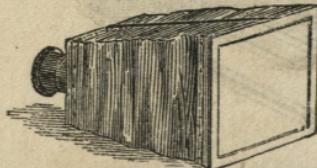


Fig. 23.

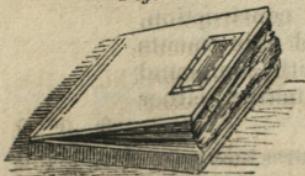


Fig. 24.



Fig. 25.

BLAND & LONG'S IMPROVED ELASTIC FOLDING CAMERA

With Apparatus for changing the papers in paper process.

(*Figs. 23, 24, 25.*)

This form of Camera has been devised with a view to extreme portability, and at the same time that the parts of it should be of such a nature as not to readily get out of order. The Camera consists of a firm bottom board, having the front which holds the lens, of mahogany hinged to it; the frame, which is destined to carry the dark slide and focussing glass, is hinged at the other end. The intervening space is, or more properly the three remaining sides are, made of waterproof black silk, which material from its strength and flexibility is admirably adapted for the purpose. A light bar of metal passes between the front and back frames to keep them properly asunder; on removal of this bar, the front from which the lens has been unscrewed folds down parallel with the bottom of the Camera, and the frame in which the focussing glass remains folds over that, forming a very portable and extremely flat parcel. The back supplied with this Camera for use with the Apparatus for changing the papers in the open air is single; double ones are as readily adapted to this as to any other form of Camera.

Everybody who has worked with the waxed or any other paper process, has found the difficulty of changing his sensitive papers while on an excursion. The Changing Apparatus figured in margin may be used with perfect ease and success in the most blazing sun, without danger of injury to the sensitive surface; it consists of a portfolio

of two compartments arranged in a light wood box, the cover of which lifts up (as shown in *Fig. 26*). To the open end of this box is fastened a yellow calico bag, having an aperture secured by a ring of vulcanized India rubber at one side near the end. The portfolio occupies the bottom of the box, and when not

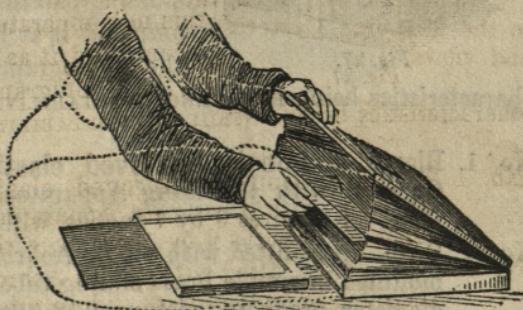


Fig. 26.

in use the calico bag is folded up and rests on the top of it, and allows the lid of containing box to shut (as shown at *Fig. 24*) There is a yellow glass window in the lid, which enables the operator to see what he is about while changing his papers.

The method of using the Changing Apparatus is as follows:—The upper compartment of the portfolio contains the sensitive papers face downwards, a sheet of blotting paper being placed between each; the dark slide of the Camera is now inserted through the opening in the yellow bag, and is followed by the right hand of the operator, who with his left raises the lid of the containing box. The door of the slide being now opened, the paper which has undergone exposure may be slipped into the under compartment of the portfolio, and a fresh piece substituted from the upper one; any number can be thus changed without trouble or the danger of injury to the sensitive surface. The space occupied by this simple piece of apparatus is extremely small, and the weight is a mere trifle.

The Camera, Lens, and Changing Apparatus, complete, for pictures 9 by 7 inches, occupy a space included in leather case 14 inches long, 11 inches wide, and 4 inches deep (*Fig. 27*).

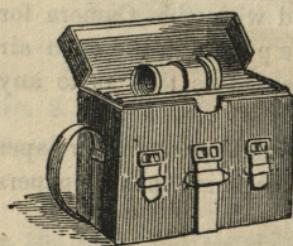


Fig. 27.

Messrs. BLAND & LONG have had practical experience in the working of this new apparatus, and can confidently recommend it as being the desideratum of the photographer on paper, its chief

characteristics being EFFICIENCY, PORTABILITY, and CHEAPNESS.

	£ s. d.
No. 1. Bland & Long's improved elastic folding Camera, with Changing Apparatus, &c., complete, for pictures 9 by 7 inches, without lens	3 13 6
No. 2. Ditto, ditto, fitted with single Achromatic lens, mounted in simple brass sliding tube, 2½ inches diameter, producing pictures 9 by 7 inches	5 18 6
No. 3. Improved elastic folding Camera, with Changing Apparatus, &c., complete, for pictures 10 by 8 inches, without lens	4 14 6
No. 4. Ditto, ditto, fitted with single Achromatic lens, mounted in brass front, with rackwork adjustment, 3 inches diameter, producing pictures 10 by 8 inches	9 4 6

	£ s. d.
No. 5. Improved elastic folding Camera, with Changing Apparatus, &c., complete, for pictures 11 by 9 inches, taking the $\frac{1}{4}$ Canson's sheet of waxed paper, without lens	5 10 0
No. 6. Ditto, ditto, fitted with single Achromatic lens, mounted in brass front, rackwork adjustment, 3 in. diameter, producing pictures 11 by 9 in. 10 0 0	
Leather sling Cases for the above Cameras, (Fig. 27) size, 9 by 7 inches, £1 5s.; 10 by 8 inches, £1 15s.; 11 by 9 inches, £2.	

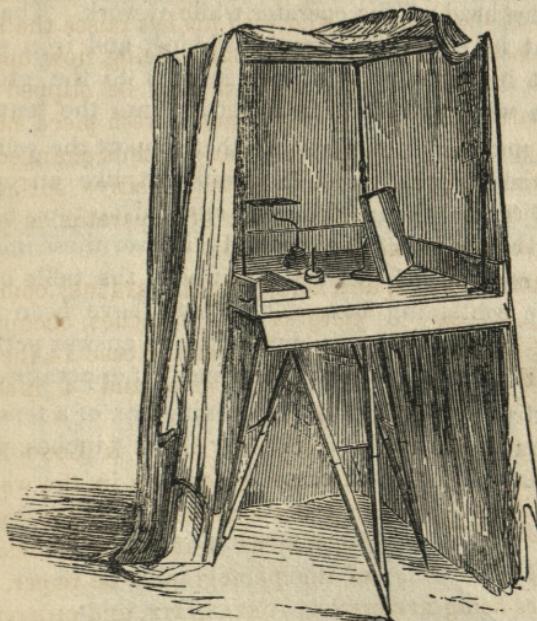


Fig. 28.

BLAND & LONG'S NEWLY-INVENTED PORTABLE DARK TENT,

For working the Collodion process in the open country. (Fig. 28.)

A good substitute for a dark room has long been a desideratum to the photographer in Collodion, and we have much pleasure in submitting the present invention to the notice of photographers generally, as combining all that can be required for the purposes of open air work.

The tent consists of a strong and roomy table, mounted on a firm Tripod Stand; from the top of the table at each corner rise four jointed spring supports, these support a frame over which is stretched yellow calico of three thicknesses; a black calico envelope covers the whole, and enables the operator to work with as great ease in the open country as he would in his own laboratory at home. The black envelope is furnished with a circular aperture at the top for admitting light to the interior of the tent, there is also a curved bar which keeps the covering from touching the head of the operator while at work. The envelope is bound at its edge with strong webbing, and iron spikes are attached at intervals in order to secure it to the ground and prevent the wind and light from getting into the tent.

When not in use, the springs that support the yellow calico chamber double inwards and fall quite flat, like an opera hat; the legs of Tripod then fold up and are laid on top; finally, the black calico envelope is folded up and laid over these immediately under the cover which secures the whole, the table of the tent forming the containing box. These tents have been in use for some time, and we can pronounce them to answer perfectly and to fulfil all the conditions required in such an apparatus.

The extreme size of outside containing box of a tent, suitable for an operator, 6 feet high, is 24 by 18 by 4 inches, forming a very portable and compact case (*Fig. 29.*)

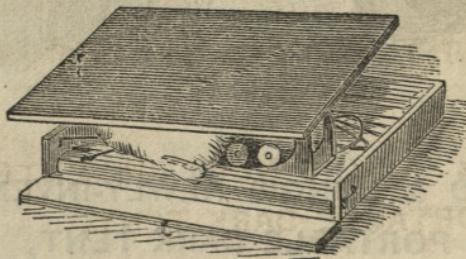
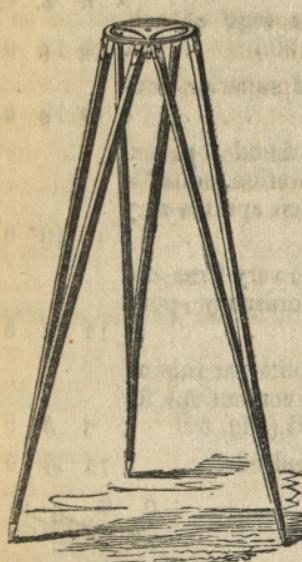


Fig. 29.

BLAND & LONG's portable Tent, for working Collodion
in the open air, complete (*Fig. 28*)

£ s. d.

5 5 0

Fig. 30.
Best.

	£	s.	d.	£	s.	d.
2½ by 2	0	12	0	0	12	0
3½ by 2½	0	18	0	0	16	0
4 by 3	1	8	0	1	7	0
4½ by 3½	1	12	0	1	10	0

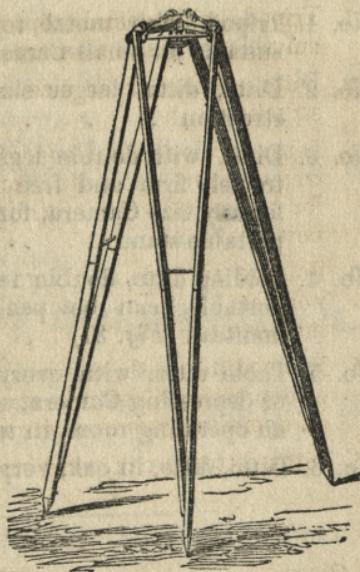


Fig. 31.

	£	s.	d.	£	s.	d.
5 by 4	2	5	0	2	3	0
6½ by 4½	3	5	0	3	0	0
8½ by 6½	5	10	0	5	0	0
—	—	—	—	—	—	—

PLATES, BEST FRENCH MANUFACTURE.

Size.	40ths.			30ths.			Electro-Plated.		
	£	s.	d.	£	s.	d.	£	s.	d.
2½ by 2	0	3	6	0	4	0	0	5	0
3½ by 2½	0	5	6	0	6	0	0	8	6
4 by 3	0	9	0	0	9	0	0	10	6
4½ by 3½	0	9	6	0	9	6	0	11	0
5 by 4	0	12	0	0	13	6	0	16	0
6½ by 4½	0	17	6	0	18	6	1	1	0
8½ by 6½	1	14	0	1	16	6	2	0	0

	£ s. d.
No. 1. Tripod, with metal top, double legs of ash, suitable for small Camera (Fig. 30.)	0 12 0
No. 2. Ditto, ditto, larger size, and of superior construction	0 18 0
No. 3. Ditto, with double legs of ash, metal top, extremely firm and free from vibration, suitable for any size Camera, forming when apart a very portable stand	1 10 0
No. 4. Folding ditto, double legs of ash, very firm and portable, can be packed in ordinary portmanteau (Fig. 31)	1 17 6
No. 5. Table ditto, with every adjustment for raising or depressing Camera, extremely convenient for an operating room, in white wood (Fig. 32)	1 5 0
No. 6. Ditto, ditto, in oak, very strong indeed	1 15 0

under the cover which secures the whole, forming the containing box. These tents have been in use for some time, and we can pronounce them to answer perfectly and to fulfil all the conditions required in such an apparatus.

The extreme size of outside containing box of a tent, suitable for an operator, 6 feet high, is 24 by 18 by 4 inches, forming a very portable and compact case (Fig. 29.)

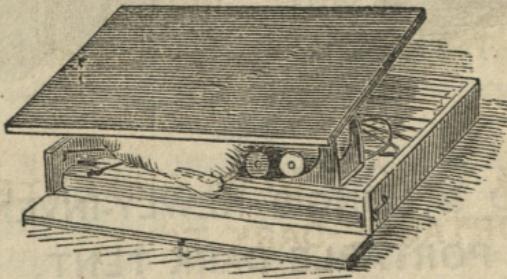


Fig. 29.

	£ s. d.
BLAND & LONG's portable Tent, for working Collodion in the open air, complete (Fig. 28)	5 5 0

	£ s. d.
No. 3. Bland & Long's Universal Head Rest, with means of adjustment for every position of the sitter, for attaching to chair (<i>Fig. 34</i>) . . .	1 10 0
No. 4. Universal Head Rest, with heavy iron foot, and brass sliding tube, which enables this rest to be used either for a standing or sitting posture . . . (<i>Fig. 35</i>)	3 3 0

APPARATUS USED IN THE DAGUERREOTYPE.

Under this head are enumerated all the apparatus, materials, and preparations required by the Photographer in operating on Silvered Plates.

DAGUERREOTYPE PLATES, ENGLISH MANUFACTURE.

Size.	Best.	2nd quality.	Size.	Best.	2nd quality.
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
2½ by 2	0 12 0	0 12 0	5 by 4	2 5 0	2 3 0
3½ by 2¾	0 18 0	0 16 0	6½ by 4¾	3 5 0	3 0 0
4 by 3	1 8 0	1 7 0	8½ by 6½	5 10 0	5 0 0
4½ by 3½	1 12 0	1 10 0	—	—	—

PLATES, BEST FRENCH MANUFACTURE.

Size.	40ths.			30ths.			Electro-Plated.		
	£	s.	d.	£	s.	d.	£	s.	d.
2½ by 2	0	3	6	0	4	0	0	5	0
3½ by 2¾	0	5	6	0	6	0	0	8	6
4 by 3	0	9	0	0	9	0	0	10	6
4½ by 3½	0	9	6	0	9	6	0	11	0
5 by 4	0	12	0	0	13	6	0	16	0
6½ by 4¾	0	17	6	0	18	6	1	1	0
8½ by 6½	1	14	0	1	16	6	2	0	0

APPARATUS USED IN DAGUERREOTYPE.

PLATE BOXES.

Each containing grooves for 12 plates.

Size.	Mahogany.			Walnut Wood.		
	£	s.	d.	£	s.	d.
2½ by 2 inches.	0	3	0	0	1	4
3½ by 2¾ "	0	3	6	0	1	6
4 by 3 "	0	4	0	0	1	8
4½ by 3¼ "	0	4	3	0	1	10
5 by 4 "	0	4	6	0	2	0
6½ by 4¾ "	0	5	6	0	2	6
8½ by 6½ "	0	6	6	0	3	0

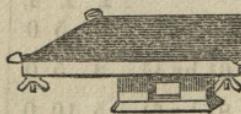


Fig. 36.

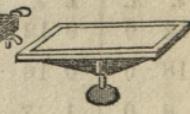


Fig. 37.

PLATE HOLDERS.

Plate Holders, of wood, with brass corners and cramp to fix to table while cleaning or polishing. (Fig. 36.)

		£	s.	d.
No. 1.	For plates, 2½ by 2 inches	0	1	6
No. 2.	" 3½ by 2¾ "	0	1	9
No. 3.	" 4 by 3 "	0	2	0
No. 4.	" 4½ by 3¼ "	0	2	3
No. 5.	" 5 by 4 "	0	2	6
No. 6.	" 6½ by 4¾ "	0	3	0
No. 7.	" 8½ by 6½ "	0	3	6

Simple polishing block, for holding the plate while buffing,
1s. 6d. and 2s. 6d.

Metal plate holders, for use with circular buffs in the lathe, or for securing the plate while buffing by hand, of superior make.

(Fig. 37.)

	£	s.	d.
For plates, $2\frac{1}{2}$ by 2 inches	0	6	0
“ $3\frac{1}{4}$ by $2\frac{3}{4}$ “	0	7	0
“ 4 by 3 “	0	8	0
“ 5 by 4 “	0	10	0
Handle of hard wood, with steel pin for use with ditto	0	1	0

AMERICAN PLATE HOLDER.

Consisting of a strong iron clamp, which firmly secures one edge of the plate, and allows of vigorous use of the buff.

	£	s.	d.
Iron clamp on wood block	0	7	6
Flat iron blocks for plates:—			
No. 1. $2\frac{1}{2}$ by 2 inches	0	2	0
No. 2. $3\frac{1}{4}$ by $2\frac{3}{4}$ “	0	2	6
No. 3. 4 by 3 “ or $4\frac{1}{4}$ by $3\frac{1}{4}$ inches	0	3	0
No. 4. $6\frac{1}{2}$ by $4\frac{3}{4}$ “	0	5	0
Apparatus for bending the edges of thin French plates, to prevent injury to the buff	0	7	6
Pliers of an improved form, for bending the corners of plates, and also for holding the plate in drying	0	2	0



Fig. 38.

BUFFS. (Fig. 38.)

The materials used in covering these buffs are rendered free from grease and any other impurities naturally existing in them.

BUFFS—CONTINUED.

	Size.	Velvet.	Doeskin.
		£ s. d.	£ s. d.
No. 1.	12 by 3 inches.	0 3 0	0 5 0
No. 2.	15 by 3 "	0 4 0	0 6 0
No. 3.	16 by 4 "	0 4 6	0 7 6
No. 4.	9 by 6 "	0 5 0	0 8 0

Best carded cotton wool	per lb.	£ s. d.
Hard wood sifting boxes, for containing polishing powders	each	0 1 6
Materials for polishing plates (<i>see page 53</i>).		

IODINE AND BROMINE PANS.

	£ s. d.
Porcelain dishes for Iodine or Bromine, with ground glass covers, from	0 2 0
Glass dishes with air-tight covers:—	
4½ by 3½ by 2 inches	each 0 8 6
7 by 5 by 3 "	" 0 12 0
8¾ by 6¾ by 3 "	" 1 2 6

IODINE AND BROMINE BOXES.

Single Iodine or Bromine box, of french polished mahogany, with glass pan, ground glass air-tight cover, and mirror for viewing the plate while under the influence of the vapour:—

For plates 4½ by 3½ inches downwards	£ s. d.
" 6½ by 4¾ " "	1 1 0
" 8½ by 6½ " "	2 12 0

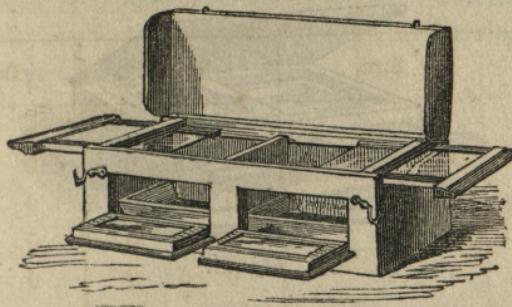


Fig. 39.

COMPOUND IODINE AND BROMINE BOXES.

This form of Bromine box is extremely convenient, as it enables the operator to readily change the plate from the Iodine to the Bromine without exposure, and at the same time to see the colour produced by the vapour.

Compound Iodine and Bromine box, of French-polished mahogany, with glass pans, polished sides, mirrors, and set of frames, &c., complete :— (Fig. 39)

		£	s.	d.
For plates $4\frac{1}{2}$ by $3\frac{1}{4}$ inches, and under	.	2	5	0
“ $6\frac{1}{2}$ by $4\frac{3}{4}$ “ “	.	3	0	0
“ $8\frac{1}{2}$ by $6\frac{1}{2}$ “ “	.	5	0	0

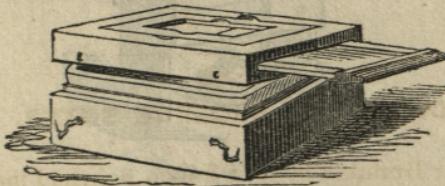


Fig. 40.

Single Iodine or Bromine boxes, French pattern, without mirrors.
(Fig. 40.)

	Delf pans.
For $\frac{1}{4}$ plate size, with set of frames	0 9 0
$\frac{1}{2}$ plate “ “	0 16 0
whole plate size “ “	1 0 0

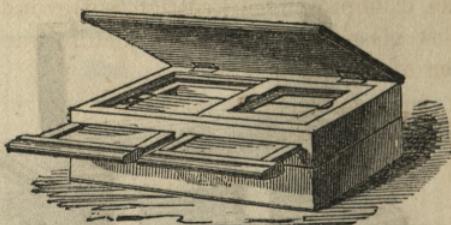


Fig. 41.

Double Iodine and Bromine boxes, French pattern, without mirrors (*Fig. 41.*)

	£	s.	d.
For $\frac{1}{4}$ plate size, with set of frames	0	18	0
$\frac{1}{2}$ plate " "	1	2	6
whole plate size. "	1	7	6

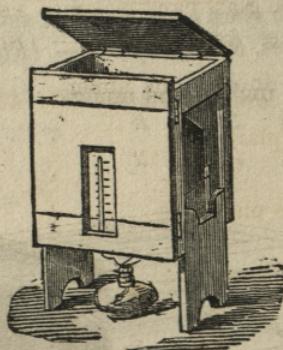


Fig. 42.

MERCURY BOXES.

Mercury Box, French pattern, walnut wood (*Fig. 42.*) :—

	£	s.	d.
No. 1. for plates $4\frac{1}{4}$ by $3\frac{1}{4}$ inches	0	8	0
No. 2. " $6\frac{1}{2}$ by $4\frac{3}{4}$ "	0	12	0
No. 3. " $8\frac{1}{2}$ by $6\frac{1}{2}$ "	0	16	0
Thermometers with ivory scales to mercury boxes, each	0	7	6

Mercury boxes, of improved construction, with window and yellow glass, for viewing the picture during the action of the mercury:—

		£ s. d.
No. 1.	for plates $4\frac{1}{4}$ by $3\frac{1}{4}$ inches	1 1 0
No. 2.	" $6\frac{1}{2}$ by $4\frac{1}{4}$ "	1 7 6
No. 3.	" $8\frac{1}{2}$ by $6\frac{1}{2}$ "	1 15 0

MISCELLANEOUS APPARATUS.

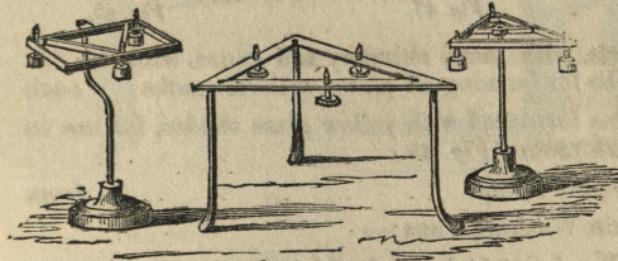


Fig. 43.

Fixing Stands with levelling screws (Fig. 43):—

		£ s. d.
No. 1.	for $\frac{1}{4}$ plate size	0 3 6
No. 2.	$\frac{1}{2}$ "	0 5 6
No. 3.	whole plate size	0 7 6



Fig. 44.

	£ s. d.
Glass Spirit Lamps, each 1s., 1s. 6d., 2s., 2s. 6d., to (Fig. 44)	0 5 0

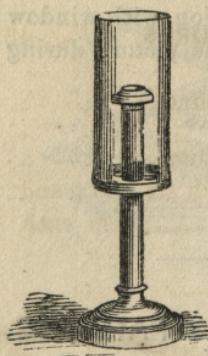


Fig. 47.

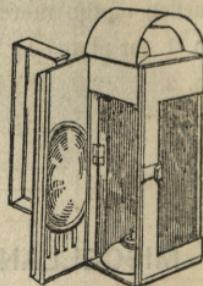


Fig. 45.

Gas Jets, with metal chimney and gauze, with flexible tube for burning off plates without smoke each
Lanterns furnished with yellow glass shades, for use in dark room (Fig. 45)

Brass Spirit Lamps from 0 2 6

Porcelain Washing Pans:—

	£	s.	d.
No. 1 size $5\frac{1}{2}$ by $4\frac{1}{2}$ by $1\frac{1}{8}$	0	1	0
No. 2 " $7\frac{1}{2}$ by 6 by $1\frac{1}{8}$	0	1	6
No. 3 " 10 by 8 by $1\frac{5}{8}$	0	3	6

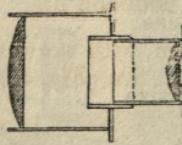


Fig. 46.

Focussing Glasses (Fig. 46) 0 8 6

Improved form of Photographic Lamp, where the ruby glass can be raised or depressed (Fig. 47) 0 8 6

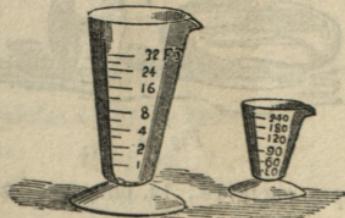


Fig. 48.

GLASS GRADUATED MEASURES. (Fig. 48.)

	£	s.	d.		£	s.	d.
1 ounce	0	1	3	6 ounce	0	2	4
2 " " " " "	0	1	4	8 " " " " "	0	2	9
4 " " " " "	0	2	0	Minim	0	1	0
Glass Funnels				each 4d., 6d., and	0	1	0
Ditto Syringes				from each	0	0	4
Ditto ditto, graduated				"	0	1	0

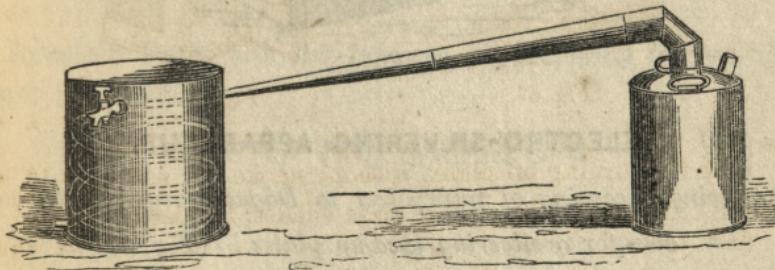


Fig. 49.

STILLS.

It is found very convenient frequently, to have at hand the means of obtaining pure water at a trifling cost; this desideratum is acquired in a very economical way by the use of a small still, which can be placed over a common fire.

	£	s.	d.
Tin Still to hold half a gallon, with worm tub complete, for use over the common fire (Fig. 49)	0	17	6
Ditto, ditto, one gallon	1	1	0
Ditto, ditto, two ditto	1	7	6
Copper ditto, half ditto	1	10	0
Ditto, ditto, one ditto	2	2	0

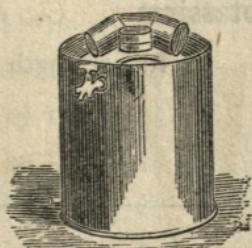


Fig. 50.

STILL PACKED FOR TRAVELLING. (Fig. 50.)

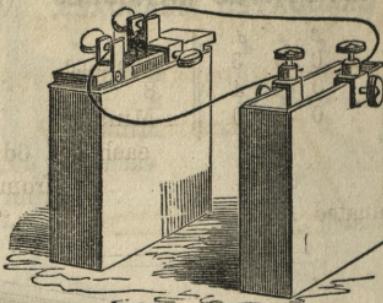


Fig. 51.

ELECTRO-SILVERING APPARATUS.

For giving a coating of pure silver to Daguerreotype plates, and
also for re-silvering used-up plates. (Fig. 51.)

Smee's Batteries No. 1, 8s. 6d. No. 2, 11s. 6d.

£ s. d.

Glass Cells, fitted with binding screws complete:—

For plates $4\frac{1}{4}$ by $3\frac{1}{4}$ inches	.	.	0	5	6
Ditto	$6\frac{1}{2}$ by $4\frac{3}{4}$ "	.	0	7	6
Ditto	$8\frac{1}{2}$ by $6\frac{1}{2}$ "	.	0	15	0

Porcelain Cells, fitted as above:—

For plates $4\frac{1}{4}$ by $3\frac{1}{4}$ inches	.	.	0	4	0
Ditto	$6\frac{1}{2}$ by $4\frac{3}{4}$ "	.	0	6	0
Pure silver foil for the above	.	.	per oz.	0	10

Argento-Cyanide of Potassium	.	.	per pint.	0	10	0
Ditto, ditto, full strength	.	.	" oz.	0	1	0

**APPARATUS, &c. USED IN THE CALOTYPE
AND OTHER PAPER PROCESSES.**

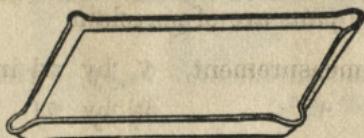


Fig. 52.

Porcelain Pans, with flat bottoms, for preparing and washing paper (Fig. 52):—

			£	s.	d.
No. 1.	size 6 by 4½ by 1⅓ inches deep		0	0	8
2.	" 7½ by 6 by 1⅓	"	0	1	6
3.	" 10 by 8 by 1⅓	"	0	2	0
4.	" 8¾ by 6¾ by 1⅓	"	0	1	3
5.	" 10 by 7½ by 1⅓	"	0	1	6
6.	" 11 by 9 by 1⅓	"	0	2	0
7.	" 13 by 11 by 1½	"	0	4	0
8.	" 15 by 11 by 1½	"	0	5	0
9.	" 20 by 16 by 1½	"	0	17	0
10.	" 22 by 18 by 1½	"	0	21	0
11.	" 8 by 5½ by 1⅓	"	0	1	0

Deep Pans for washing:—

No. 1.	size 9½ by 8½ by 2½ inches deep	0	2	6	
2.	" 10½ by 8½ by 2½	"	0	2	9
3.	" 11 by 10 by 2½	"	0	3	0
4.	" 13½ by 11½ by 2½	"	0	6	0
5.	" 14½ by 12½ by 2½	"	0	8	0
6.	" 16 by 12½ by 2½	"	0	9	6
7.	" 19½ by 14½ by 2½	"	0	15	0
8.	" 23½ by 18 by 3	"	1	5	0

Glass Dishes with polished bottoms and edges for preparing waxed or Calotype papers. The advantage possessed by these dishes is, that they are entirely unacted upon by the chemicals employed, and therefore can be used for different solutions one after another, without risk of the admixture which is so likely to take place when the pans are of porcelain.

			£	s.	d.
No. 1.	Inside measurement, 7 by 5½ inches		0	6	0
2.	" 9½ by 7½ "		0	11	0
3.	" 10½ by 8½ "		0	15	0
4.	" 11½ by 9½ "		0	17	6
5.	" 13 by 11 "		1	5	0

GUTTA PERCHA WASHING TRAYS.

£ s. d.

No. 1.	Nest of three Gutta Percha Trays:—				
	Size of largest 10 by 8 by 1½ inches				0 9 0
No. 2.	Nest of three Gutta Percha Trays:—				
	Size of largest 11 by 9 by 1½ inches				0 12 0

Gutta Percha Pans, of very superior finish, with perfectly flat and polished bottoms.

No. 1.	size 12½ by 10½ inches	£	s.	d.
2.	" 12 by 10 "	0	6	6
3.	" 11½ by 9½ "	0	5	6
4.	" 11 by 9 "	0	4	0
Or nest of four of above sizes		1	1	0
5.	" 19½ by 14½ by 2 inches	1	0	0

GUTTA PERCHA FUNNELS.

Gutta Percha Funnel, each 6d., 8d., 1s. 3d., 1s. 6d., and 2s.
Gutta Percha Dipping Troughs. (See page 42.)

Glass Rods for the spreading of solutions on paper,
each 4d., 6d. and 0 1 0

Boards for the preparation of paper.—

No. 1.	For paper 7 by 6 inches	£	s.	d.
No. 2.	" 8 by 7 "	1	3	
No. 3.	" 10 by 8 "	1	6	
No. 4.	" 11 by 9 "	2	0	



Fig. 54.

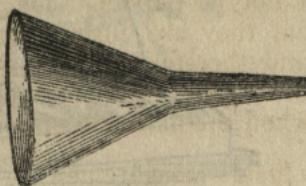


Fig. 55.



Fig. 56.

Glass Graduated Measures, (Fig. 54.) accurately divided.

	s. d.		s. d.
Contents 1 ounce	1 3	Contents 8 ounces	2 9
“ 2 ounces	1 4	“ 20 oz. cylindrical	3 6
“ 4 “	2 0	Minim measure, 120 drps	1 0
“ 6 “	2 4	“ 240 “	1 0

GLASS FUNNELS,

Ribbed inside, for filtering. (Fig. 55.)

	s. d.
No. 1. 2 inches diameter	0 4
No. 2. 2½ “	0 5
No. 3. 4 “	0 6
No. 4. 5 “	0 8
No. 5. 6 “	1 0
No. 6. 7 “	1 4

Funnels, Wedgwood, cream colour, ribbed inside:—

No. 1. 2 inches diameter	0 5
No. 2. 3½ “	0 8
No. 3. 4 “	0 10
No. 4. 5 “	1 4
No. 5. 6 “	2 0
No. 6. 6½ “	2 6

Filter Holders, (Fig. 56.) very useful for filtering small quantities of liquid each 3d., 6d., and 8d.

Glass Syringes, for taking up definite quantities of solutions.—
Plain, from 4d.; Graduated, from 1s.

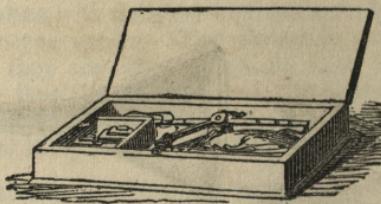


Fig. 57.

SCALES AND WEIGHTS.

	£	s.	d.
No. 1. In oak box, metal pans	0	3	0
No. 2. Ditto	0	5	0
No. 3. Ditto glass pans (Fig. 57)	0	7	0
No. 4. Mahogany box	0	12	0
No. 5. Ditto, with brass pillar and glass shifting pan, with drawer	2	2	0

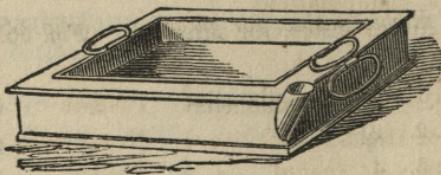


Fig. 58.

Double Tin Dish for Waxing Paper, (Fig. 58,) very convenient	0	12	6
Ditto, ditto, with plated inner dish	1	5	0
Horn Forceps, for manipulating with waxed paper, (Fig. 59,) 1s. each.			



Fig. 59.

CAMEL'S HAIR BRUSHES,

Made expressly for Calotype.

	s.	d.		s.	d.
1½ inches broad, each	1	6	3 inches broad, each	2	6
2 " " " 1 9	4	" " 3 6			
2½ " " " 2 3	5	" " 4 6			
Thick round ditto			each, 1s., 1s. 6d. and	2	0



Fig. 60.

Buckle's Brushes (Fig. 60,) for spreading solutions, each £ 0 2 0

PHOTOGRAPHIC PAPER.

As much of the success of the Calotype, waxed paper, and other paper processes depends on the nature of the material on which the sensitive compound is spread, a careful selection of papers from the most eminent makers has been made, combining fineness of surface and evenness of texture, with a proper tenacity to allow of the necessary washings to which the paper is exposed in the various manipulations.

		Per quire.
		£ s. d.
CANSON Frères,		
size 22½ by 17½ inches	}	Negative . . . 0 3 0
WHATMAN'S, or HOLLINGSWORTH'S,		Positive . . . 0 4 0
size 19 by 15 inches	}	Negative . . . 0 3 0
TURNER'S patent Talbotype,		Positive . . . 0 3 0
size 15 by 9 inches	}	Negative . . . 0 2 6
German paper,		Positive . . . 0 1 6
size 22½ by 17½ inches	}	Negative . . . 0 3 0
BLAND & LONG'S Waxed paper, prepared with great care, size 17½ by 11 inches		Positive . . . 0 4 0
BLAND & LONG'S Iodized Waxed paper, size 17½ by 11 in.		0 7 0
BLAND & LONG'S Iodized paper,		0 15 0
Size 7 by 6 inches, 3s. dozen		Size 10 by 8 inches, 8s. dozen
9½ by 7½ " 5s. "		15 by 12 " 12s. "
White Bibulous paper, prepared free from iron or other impurities		per quire 0 1 3
Papier Joseph		" 0 1 0
Solution for Iodizing paper, for Calotype, per ounce		0 1 6
" " Waxed paper . . .		per pint 0 5 0
" for rendering the above sensitive		" 0 9 0

BLAND & LONG'S ALBUMENIZED PAPER,

For printing from Glass or Paper Negatives.

The great superiority of the definition obtained by this method of printing over that of the ordinary process, renders it necessary that all pictures—where great minuteness of detail is essential to their successful effect—should be printed on Albumenized paper. It is easily rendered sensitive, and being prepared with Salts of Baryta will give every colour and tone from a sepia to a perfect black.

		per quire	£	s.	d.
Size 22½ by 17½ inches			0	14	0
17½ by 11 "		"	0	7	0
11 by 9 "		"	0	3	6

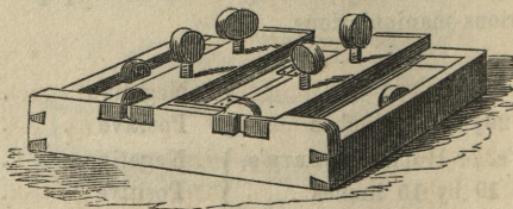


Fig. 61.

REVERSING OR PRINTING FRAMES.

These frames are so constructed, that a uniform pressure may be obtained, thus insuring perfect contact between the positive and negative papers. The back boards of these frames are so arranged, that the progress of the picture may be watched without danger of shifting the papers.

Reversing Frames in French-polished Mahogany (Fig. 61):—

No. 1.	For pictures, 7 by 6 inches	£	s.	d.
2.	" 9 by 7 "	0	10	0
3.	" 10 by 8 "	0	12	6
4.	" 12 by 10 "	0	15	0
5.	" 14 by 12 "	1	1	0
		1	7	6

Reversing Frames in White Wood, hinged backs for viewing progress of picture :—

		£	s.	d.
No. 1.	size of glass, 6 by 5 inches	0	5	6
2.	" $7\frac{3}{4}$ by $6\frac{1}{4}$ "	0	7	0
3.	" $10\frac{1}{2}$ by 8 "	0	8	0
4.	" $11\frac{1}{2}$ by $9\frac{1}{2}$ "	0	12	0

APPARATUS USED FOR THE COLLODION AND ALBUMEN PROCESSES.

In the following list will be found all the necessary materials and apparatus for use in both the Collodion and Albumenized Glass processes, together with forms of Focimeter for determining the chemical foci of Lenses.

Glass Plates, with ground edges, best patent plate, free from specks

	PER DOZ.		PER DOZ.		
	s.	d.	s.	d.	
Size $3\frac{1}{4}$ by $2\frac{3}{4}$ inches	1	3	Size 7 by 6 inches	5	3
" 4 by 3 "	1	6	" $8\frac{1}{2}$ by $6\frac{1}{2}$ "	6	6
" $4\frac{1}{4}$ by $3\frac{1}{4}$ "	1	9	" 9 by 7 "	7	6
" 5 by 4 "	2	3	" 10 by 8 "	11	6
" 6 by 5 "	3	6	" 12 by 10 "	17	0
" $6\frac{1}{2}$ by $4\frac{3}{4}$ "	3	6			

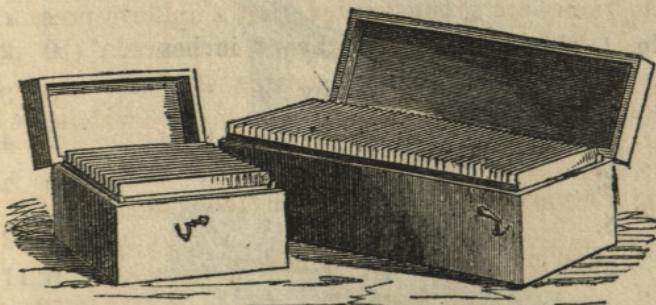


Fig. 62.

Boxes for holding Glass Plates, White Wood, with grooves for One Dozen Plates (Fig. 62) :—

BOXES FOR GLASS PLATES.

	s. d.		s. d.
No. 1. size 3 $\frac{1}{4}$ by 2 $\frac{3}{4}$ in.	1 6	No. 6. size 6 by 5 in.	2 3
2. " 4 by 3 "	1 8	7. " 7 by 6 "	3 0
3. " 4 $\frac{1}{4}$ by 3 $\frac{1}{4}$ "	1 8	8. " 8 $\frac{1}{2}$ by 6 $\frac{1}{2}$ "	3 6
4. " 5 by 4 "	2 0	9. " 9 by 7 "	4 0
5. " 6 $\frac{1}{2}$ by 4 $\frac{3}{4}$ "	2 6	10. " 10 by 8 "	5 0

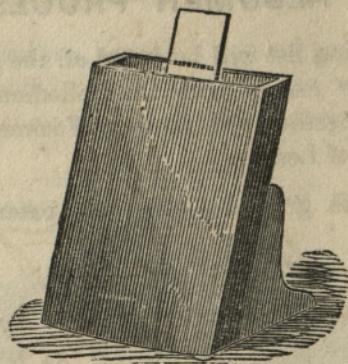


Fig. 63.

GUTTA PERCHA DIPPING BATHS.

Inclined, with bracket supports, and glass dippers (*Fig. 63*) :—

		£ s. d.
No. 1. size, for plates 4 by 3 inches	.	0 2 6
2. " 5 by 4 "	.	0 3 6
3. " 6 by 5 "	.	0 4 6
4. " 8 $\frac{1}{2}$ by 6 $\frac{1}{2}$ "	.	0 7 0
5. " 9 by 7 "	.	0 10 6
6. " 10 by 8 "	.	0 11 0
7. " 12 by 10 "	.	0 17 6
8. " 14 by 12 "	.	1 2 6
9. for Stereoscopic plates	.	0 3 6

Glass Dipping Baths, fitted in Mahogany stands, with glass dippers:—

		£	s.	d.
No. 1. size, for plates	4 by 3 inches	0	3	0
2.	" 5 by 4 "	0	4	0
3.	" 6 by 5 "	0	6	0
4.	" 8½ by 6½ "	0	17	6

Glass Dippers, for plunging the plates into the Bath of Nitrate of Silver:—

		£	s.	d.
No. 1. size, for plates	5 by 4 inches	0	0	6
2.	" 7 by 6 "	0	1	0
3.	" 10 by 8 "	0	1	6
4.	" 12 by 10 "	0	2	0



Fig. 64.

Porcelain Pans for washing (see page 35).

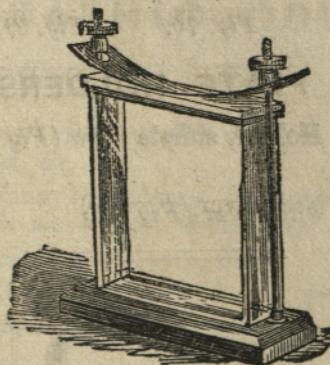


Fig. 65.

Water-tight Baths, in Glass and Gutta Percha (Fig. 65).

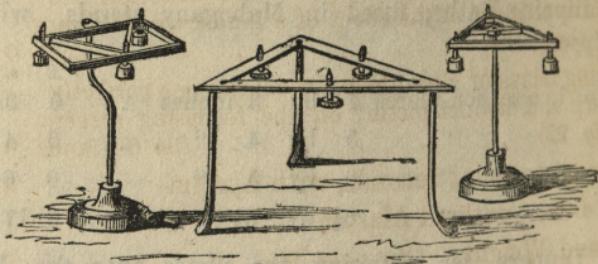


Fig. 67.

Fig. 68.

Fig. 66.

LEVELLING STANDS,

With adjusting Screws, for laying plates with Albumen, and developing Collodion pictures.

		£	s.	d.
No. 1. size, for plates up to 5 by 4 inches (Fig. 66)		3	0	
2. " " 7 by 6 "		5	0	
3. " " 9 by 7 "		7	6	
4. " " 12 by 10 "		8	6	

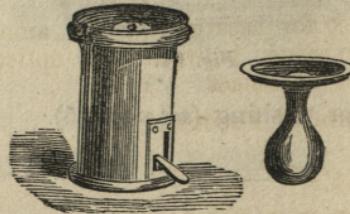


Fig. 70.

Fig. 69.

PLATE HOLDERS.

Pneumatic Plate Holder, simple form (Fig. 69)

£ s. d.

0 1 0

Ditto, ditto

0 2 0

Ditto, ditto, large, with lever (Fig. 70)

0 4 6

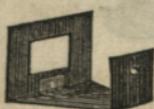


Fig. 71.

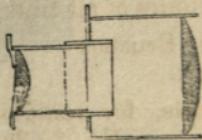


Fig. 72.

	£ s. d.
Photographic Visnometer, (Fig. 71) for enabling the tourist to judge of the effect of a landscape, folding for the pocket	0 3 6
Focussing Glass or Eye-piece, for obtaining a perfectly sharp and distinct picture on the focussing screen (Fig. 72)	7s. 6d. and
Instrument to count Seconds, with Alarum	3 0 0
Ditto, ditto, without Alarum	1 5 0
Scales and Weights (See page 38).	

BLAND AND LONG'S VARNISH.

	£ s. d.
For protecting the Collodion picture from injury during printing per ounce,	0 0 4
This varnish is a most perfect protection and is easily applied; it possesses the qualities of extreme hardness, transparency, and rapidity of drying in the highest degree.	
Filter Rings, useful in filtering small quantities of liquids each, 3d., 6d., and	0 0 8
Glass Graduated Measures (See page 37)	
Claudet's Focimeter, for ascertaining the amount of separation existing between the optical and chemical foci of lenses	1 10 0
BLAND & LONG's form of Focimeter	1 1 0

PHOTOGRAPHIC COLOURS,

For colouring Photographs on Plate or Collodion.

	£ s. d.
No. 1. Box containing 7 colours, with gold and silver shells, brushes, &c.	0 7 6
No. 2. Ditto, containing 14 colours, gold and silver shells, and an assortment of brushes	0 10 6
No. 3. Ditto, containing 21 colours, ditto	0 15 0
Separate colours of all tints per bottle	0 1 0
Camel's-hair Brushes per dozen	0 1 0
Sable ditto "	0 8 0
Elastic Bottle, for removing dust from plate, No. 1, 2s. 6d., No 2, 3s. 6d., No. 3, 4s. 6d.	

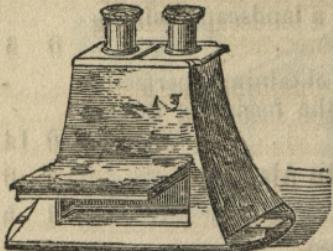


Fig. 73.

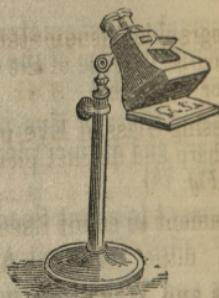


Fig. 75.

STEREOSCOPES, AND STEREOSCOPIC PICTURES.

Stereoscopes are of two kinds, namely, the Reflecting Stereoscope of Professor Wheatstone, and the Lenticular or Refracting one of Sir David Brewster (*Fig. 73*). They both possess the power, as their name implies, of exhibiting objects properly prepared as solids; that is to say, precisely as we see them in nature, having three dimensions—length, breadth, and thickness.

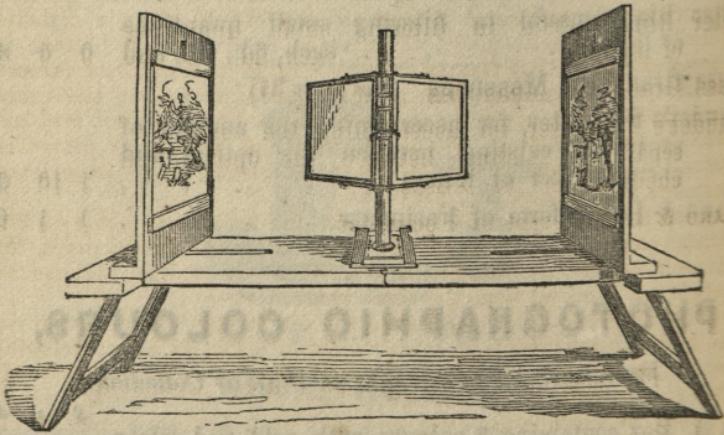


Fig. 74.

The Reflecting Stereoscope (*Fig. 74*) is best adapted to the display of large pictures and views; while the Lenticular one is most suited for the exhibition of portraits, architectural subjects, still life, groups of statuary, and such objects which do not suffer by being reduced to pictures of small size.

One of the most beautiful applications of Photography is, the taking of pictures fitted for the Stereoscope; in fact, this is the only really correct means by which we can obtain them.

DESCRIPTION OF THE PHENOMENA PRODUCED BY THE STEREOSCOPE.

The Stereoscope is an instrument which was originally designed, but in a different form from that now generally used, by Professor Wheatstone, for the purpose of demonstrating the theory of binocular vision, or, in other words, of exhibiting the effects and advantages of having two eyes.

The name is derived from two Greek words signifying to view solid things, and the instrument is so constructed that two flat pictures, taken under certain conditions, shall appear to form a single solid or projecting body.

The effects are so striking, and seem so opposed to the evidence of our senses, that the most casual observer immediately seeks a solution of the mystery. As, however, the phenomena cannot be comprehended without some knowledge of the science of optics, a few general principles will be stated in as familiar a manner as the subject will admit.

All bodies are rendered visible by the light which radiates from every point of their surfaces, each ray of light carrying with it the image of the object from which it emanated. These rays are refracted by the crystalline lens and other humours of the eye; and are brought to a focus so as to form a picture of the object, upon a delicate expansion of the optic nerve termed the retina, which picture is precisely similar to that formed by the lens in the ordinary camera obscura. The impressions thus produced are conveyed to the brain or sensorium by the optic nerves; so that the eye does not see, but is merely the instrument by means of which the mind perceives external objects while the judgment derived from experience determines their shapes and distances.

A picture of an object is formed on the retina of each eye, but although there may be but one object presented to the two eyes, the pictures formed on the two retinæ are not precisely alike, because the object is not observed from the same point of view.

If the finger be held at a distance of six or eight inches from the eyes, it will be obvious that it can only be seen by rays diverging from the finger, as no others would enter the eyes. And if we bend a card so as to represent a triangular roof, place it on the table with the gable end towards the eyes, and look at it, first with one eye and then with the other, quickly and alternately opening and closing one of the eyes, the card will appear to move from side to side, because it is seen by each eye under a different angle of vision. If we look at the card with the left eye only, the whole of the left side of the card will be plainly seen, while the right side will be thrown into shadow. If we next look at the same card with the right eye only, the whole of the right side of the card will be distinctly visible, while the left side will be thrown into shadow; and thus *two images of the same object, with differences of outline, light, and shade* will be formed, the one on the retina of the right eye, and the other on the retina of the left. These images falling on corresponding parts of the retinæ convey to the mind the impression of a single object, while experience

having taught us, however unconscious the mind may be of the existence of two different images, that the effect observed is always produced by a body which really stands out or projects, the judgment naturally determines the object to be a projecting body.

It is experience also that teaches us to judge of distances by the different angles of vision under which an object is observed by the two eyes, for the inclination of the optic axes when so adjusted that the images may fall on corresponding parts of the retinæ, and thus convey to the mind the impression of a single object, must be greater or less according to the distance of the object from the eyes.

Perfect vision cannot then be obtained without two eyes, as it is by the combined effect of the image produced on the retina of each eye, and the different angles under which objects are observed, that a judgment is formed respecting their solidity and distances.

A man restored to sight by couching cannot tell the form of a body without touching it, until his judgment has been matured by experience, although a perfect image may be formed on the retina of each eye. A man with only one eye cannot readily distinguish the form of a body which he had never previously seen, but quickly and unwittingly moves his head from side to side, so that his one eye may alternately occupy the different positions of a right and left eye; and, if we approach a candle with one eye shut, and then attempt to snuff it, we shall experience more difficulty than we might have expected, because the usual mode of determining the correct distance is wanting.

In order, then, to deceive the judgment, so that flat surfaces may represent solid or projecting figures, we must cause the different images of a body, as observed by the two eyes, to be depicted on the respective retinæ, and yet to appear to have emanated from one and the same object. Two pictures are therefore taken from the really projecting or solid body, the one as observed by the right eye only, and the other as seen by the left. These pictures are then placed in the box of the Stereoscope, which is furnished with two eye-pieces containing lenses so constructed that the rays proceeding from the respective pictures, to the corresponding eye-pieces, shall be refracted or bent outwards, at such an angle as each set of rays would have formed had they proceeded from a single picture in the centre of the box to the respective eyes, without the intervention of the lenses; and as it is an axiom in optics that the mind always refers the situation of an object to the direction from which the rays appear to have proceeded when they enter the eyes, both pictures will appear to have emanated from one central object; but as one picture represents the real or projecting object as seen by the right eye, and the other as observed by the left, though appearing by refraction to have proceeded from one and the same object, the effects conveyed to the mind, and the judgment formed thereon, will be precisely the same as if the images were both derived from *one solid or projecting body*, instead of from *two pictures*, because all the usual conditions are fulfilled; and consequently the two pictures will appear to be converted into one solid body.

The necessary pictures for producing these effects, excepting those of geometrical figures, which may be laid down by certain

rules, cannot, however, be drawn by the hands of man, for, as Professor Wheatstone has observed, "It is evidently impossible for the most accurate and accomplished artist to delineate, by the sole aid of his eye, the two projections necessary to form the stereoscopic relief of objects as they exist in nature with their delicate differences of outline, light, and shade. But what the hand of the artist was unable to accomplish, the chemical action of light, directed by the camera, has enabled us to effect."

Daguerreotype portraits and Talbotype pictures are therefore taken, usually by two Cameras placed towards the object, with a difference of angle equal to the difference of the angle of vision of the two eyes, which is about 18° when the object is eight inches from the eyes; hence, if these be carefully examined and compared with the original projecting objects, they will be found to be faithful representations of the object as seen by each eye respectively.

DIRECTIONS FOR USING THE STEREOSCOPE.

The objects must be so adjusted in the box that only one picture may be seen in the centre, care being taken that the pictures are not reversed so as to be seen by the right eye instead of the left, and vice versa.

The proper position of portraits, buildings and similar objects, cannot be mistaken, but where this is not readily perceived, it should be ascertained, when the object can be marked so as at once to be properly placed.

The eye-pieces, if allowed to turn, are marked with arrows to indicate their proper position; these must be placed inwards, and in a right line with each other.

The eye-pieces are made to draw out to suit the foci of different persons. Those who use spectacles will generally see best with them on, bringing them forward *so as to lie flat on the eye-pieces*, which, in such cases, should not be drawn out.

	£ s. d.
Reflecting Stereoscope for large views	2 10 0
Ditto, ditto, superior construction (<i>Fig. 74</i>)	4 4 0
Refracting Stereoscope, in Japanned Tin, with diagrams each	0 3 0
Ditto, ditto, (<i>Fig. 73</i>), in mahogany, with Brass Eye- pieces	7s. 6d. and 0 10 0
Ditto, ditto, rosewood	0 14 0
Ditto, ditto, " superior, with Ivory Eye-pieces	1 1 0
Ditto, ditto, in mahogany, very superior, with Brass Eye-pieces, adapted for hot climates	0 18 0
Ditto, ditto, mounted on brass adjusting stand suitable for the table (<i>Fig. 75</i>)	1 15 0
Brass Stand for Stereosco	from 0 15 0

STEREOSCOPIC PICTURES.

Messrs. BLAND AND LONG would take occasion to remark, that a great difference exists in the quality of pictures suited to the Stereoscope, the prices of those only which are highly satisfactory as works of art being detailed in the following list:—

Daguerreotype Pictures for Stereoscopes, each 5s., 6s., & 0 10 0

Views and Subjects on paper, each 1s., 2s., and 0 3 0

Transparent Albumen Pictures on Glass, including views in all parts of the globe, 4s., 5s., 7s. 6d., 9s., & 0 10 0

Large Views on paper for reflecting Stereoscopes, per pr. 0 12 0

Messrs. BLAND AND LONG are continually adding new subjects to their stock of Stereoscopic Pictures.

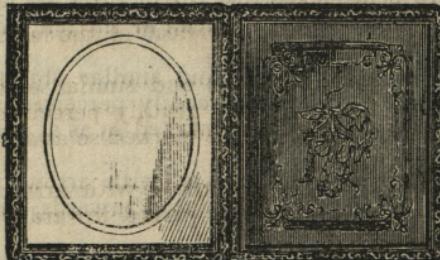


Fig. 76.



Fig. 77.

MOROCCO CASES,

With Gilt Mats.

Morocco Cases, fitted with Glasses and Gilt Mats of three shapes—dome, oval, and cushion, of very superior quality, for finished pictures (Fig. 76):—

No.	size, for plates	per doz.	£ s. d.
1.	2½ by 2 inches		0 10 0
2.	3½ by 2¾ "		0 16 0
3.	4 by 3 "		1 2 0
4.	4½ by 3½ "		1 4 0
5.	5 by 4 "		1 15 0
6.	6½ by 4¾ "		2 10 0
7.	6 by 5 "		2 10 0
8.	8½ by 6½ "		5 0 0

MOROCCO FRAMES,*With Suspensory Rings, Mats, and Glasses. (Fig. 77.)*

			per doz.	£	s.	d.
No. 1.	size, for plates	$2\frac{1}{2}$ by 2 inches	.	0	7	0
2.	"	$3\frac{1}{4}$ by $2\frac{3}{4}$ "	.	0	9	6
3.	"	4 by 3 "	.	0	10	6
4.	"	$4\frac{1}{4}$ by $3\frac{1}{4}$ "	.	0	12	6
5.	"	5 by 4 "	.	1	0	0
6.	"	$6\frac{1}{2}$ by $4\frac{3}{4}$ "	.	1	10	0
7.	"	$8\frac{1}{2}$ by $6\frac{1}{2}$ "	.	3	0	0

GILT MATS,*Of superior quality, oval, dome, and cushion shapes.*

			per doz.	£	s.	d.
No. 1.	size, for plates	$2\frac{1}{2}$ by 2 inches	.	0	0	8
2.	"	$3\frac{1}{4}$ by $2\frac{3}{4}$ "	.	0	1	0
3.	"	4 by 3 "	.	0	1	3
4.	"	$4\frac{1}{4}$ by $3\frac{1}{4}$ "	.	0	1	6
5.	"	5 by 4 "	.	0	2	9
6.	"	$6\frac{1}{2}$ by $4\frac{3}{4}$ "	.	0	5	6

PRESERVERS.

These frames are composed of thin gilt metal, having a beading on the edge; their use is to keep the glass, mat, and picture in close contact, to the exclusion of dust, &c.

			per doz.	£	s.	d.
No. 1.	size, for plates	$2\frac{1}{2}$ by 2 inches	.	0	0	9
2.	"	$3\frac{1}{4}$ by $2\frac{3}{4}$ "	.	0	0	10
3.	"	$4\frac{1}{4}$ by $3\frac{1}{4}$ "	.	0	1	8
4.	"	5 by 4 "	.	0	3	0
5.	"	$6\frac{1}{2}$ by $4\frac{3}{4}$ "	.	0	4	6

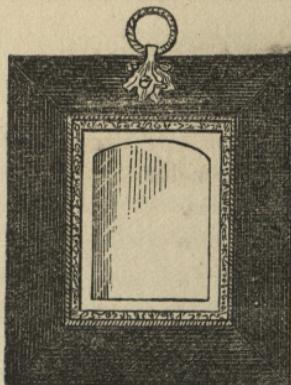


Fig. 78.



Fig. 79.

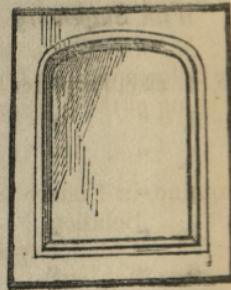


Fig. 80.

BLACK PAPIER MACHE FRAMES,

Very elegant, with Gilt Rim and Suspension Ring. (Fig. 78.)

		£	s.	d.
No. 1.	size, for plates $2\frac{1}{2}$ by 2 inches	each	0	2 6
2.	" " $3\frac{1}{4}$ by $2\frac{3}{4}$ "	"	0	3 0
3.	" " $4\frac{1}{4}$ by $3\frac{1}{4}$ "	"	0	4 0
4.	" " 5 by 4 "	"	0	4 6

ORMOLU FRAMES,

With Gilt Mats and Glasses. (Fig. 79.)

		£	s.	d.
No. 1.	size, for plates $2\frac{1}{2}$ by 2 inches	each	0	1 6
2.	" " $3\frac{1}{4}$ by $2\frac{3}{4}$ "	"	0	2 0
3.	" " $4\frac{1}{4}$ by $3\frac{1}{4}$ "	"	0	3 0
4.	" " 5 by 4 "	"	0	5 0
5.	" " 6 by 5 "	"	0	10 0

PASSE PARTOUTS,

For Daguerreotype, Glass, or Paper Portraits and Views. (Fig. 80.)

Inches.	Dark ground.	White & gold.	Dead gold.	Card- board.	
				s.	d.
No. 1. For plates, $2\frac{1}{2}$ by 2 per doz.				2	0
2.	$3\frac{1}{4}$ by $2\frac{3}{4}$ "	2	6	3	0
3.	$4\frac{1}{4}$ by $3\frac{1}{4}$ "	3	3	4	6
4.	5 by 4 "	5	6	7	6
5.	$6\frac{1}{2}$ by $4\frac{3}{4}$ "	6	9	9	6
6.	$8\frac{1}{2}$ by $6\frac{1}{2}$ "	12	0	18	0

Gutta Percha Frames to order.

PURE CHEMICALS AND PREPARATIONS*Used in the Photographic Processes.*

Messrs. BLAND & LONG feel great confidence in submitting the following list of Chemicals, &c., to the notice of Photographers, as being of the first quality and of perfect purity.

DAQUERREOTYPE.

			£	s.	d.
Bromine, in 1 ounce bottles	.	.	0	2	6
" Solution	.	per ounce	0	0	4
" Chloride, prepared for use	.	"	0	0	6
Bromide of Lime	.	per bottle	0	2	6
" Iodine	.	per ounce	0	1	0
Chloro-bromide of Lime	.	per bottle	0	3	6
Charcoal, prepared, for polishing plates	.	per packet	0	1	0
Cotton wool, best	per ounce	3d., per pound	0	3	0
Gold, Chloride, in bottles	.	1/4 dram	0	3	0
" "	.	1/2 "	0	5	0
" "	.	1 "	0	8	6
" "	.	2 "	0	17	0
Gold, Salt of (Sel d'or)	.	per bottle	0	3	9
Iodine, pure, re-sublimed (variable)	.	per ounce	0	2	0
" Commercial	.	"	0	1	6
" Tincture	.	"	0	0	6
" Chloride	.	"	0	3	0
Lime, Bromide	.	per bottle	0	2	6
" Iodide	.	"	0	2	6
Lamp Black, prepared for buffing	.	per packet	0	1	0
Mercury, pure distilled	per ounce	3d., per pound	0	2	6
Naphtha, for lamp	.	per pint	0	1	6
Rottenstone, prepared, for polishing	.	per ounce	0	0	6
Rouge	.	"	0	0	6
Sensitive Solution	.	per bottle	0	2	6
Silver Solution (Argento-cyanide of Potassium), for re-silvering Daguerreotype plates	per ounce	0	1	0	
Soda, Hyposulphite, pure, per pound	8d., "	"	0	0	1
Tripoli, prepared, for polishing	.	"	0	0	6
Water, distilled	.	per gallon	0	0	6

CALOTYPE AND PAPER PROCESSES.

Acid, Acetic Glacial, pure	.	per ounce	0	1	0
" Gallic	.	"	0	1	6
" Succinic	.	"	0	5	0
Ammonia, pure	.	"	0	0	2
" Muriate, free from iron	.	"	0	0	3
Ammonium, Iodide (variable)	.	"	0	2	6
Barium, Chloride	.	"	0	0	2

			£	s.	d.
Barium, Iodide (variable)	per ounce	0	4	0	
Gold, Chloride	per dram	0	8	6	
" Solution, for darkening positives	per ounce	0	0	6	
Iron, Protosulphate, pure	"	0	0	1	
" Iodide (variable)	"	0	2	0	
Potassium, Bromide, pure (variable)	"	0	2	0	
" Cyanide	"	0	0	4	
" Iodide (variable)	"	0	2	0	
" Ferrocyanate (yellow prussiate)	"	0	0	4	
" Ferridcyanide (red prussiate)	"	0	0	6	
" Fluoride	"	0	2	0	
Silver, Nitrate, crystallized	"	0	4	0	
" " fused	"	0	4	6	
" Ammonio-nitrate	"	0	1	0	
" Iodide	"	0	6	0	
" " in Iodide of Potassium	"	0	1	6	
Soda, Hyposulphite	per pound	8d.	"	0	0
Sodium, Chloride, pure	"	0	0	3	
" Fluoride	"	0	1	0	
Sugar of Milk	"	0	0	3	
Solution for iodizing waxed paper	per pint	0	5	0	
" rendering " sensitive	"	0	9	0	
White Wax	per pound	0	3	0	

COLLODION AND ALBUMEN GLASS PROCESSES.

Acid, Acetic Glacial	per ounce	6d. and	0	0	4
" Pyrogallic, pure	per ounce	8s., per dram	0	1	0
" Sulphuric, pure	per ounce	0	0	2	
" " common	per pound	0	0	3	
Ammonia, pure	per ounce	0	0	2	
Ammonium, Iodide (variable)	"	0	3	6	
Barium, Iodide	"	0	4	0	
Baryta, Nitrate, pure	"	0	0	3	
Collodion	"	0	0	8	
" Iodized	"	0	0	9	
Æther, Sulphuric, rectified	"	0	0	6	
Iron, Protosulphate, pure	"	0	0	1	
" Protonitrate, solution	"	0	0	3	
" Iodide (variable)	"	0	2	0	
Potassa, Nitrate, powdered	per pound	0	1	0	
Potassium, Iodide (variable)	per ounce	0	2	0	
Silver, Nitrate, crystallized	"	0	4	0	
" " fused	"	0	4	6	
" Iodide	"	0	6	0	
Soda, Hyposulphite	per pound	8d.	0	0	4
Varnish for protecting glass pictures	"	0	0	1	

The foregoing prices are subject to variation.

**BLAND & LONG'S
IODIZED COLLODION,**

Price 9d. per ounce.

This valuable preparation for sensitiveness and uniformity of action is unsurpassed.

The COLLODION and IODIZING SOLUTION can be obtained separate, in which state they will keep for an indefinite period, and can be exported to any climate without risk of deterioration.

Price of Collodion, in pint bottles, 12s. 6d.; Iodizing Solution, for one pint, 4s. 6d.; making 27 ounces Iodized Collodion 17s.

NITRATE OF SILVER BATH,

FOR BLAND & LONG'S COLLODION,

Ready for immediate use.—Price 7s. 6d. per pint.

BLAND & LONG'S**BENZOIN VARNISH,**

FOR PROTECTING COLLODION PICTURES.

Price 1s. per ounce.

This Varnish does not require the plate to be warmed, but dries instantly, leaving a perfectly hard transparent coating on the picture.

LIQUID JET,

For applying to the back of Collodion Positives, giving great brilliancy and lustre to the Pictures.—Price in 4 oz. bottles, 6d.; 8 oz. ditto, 1s.

BLAND & LONG'S**POSITIVE TONING BATH,**

For giving rich tones and colour to Positive Photographs, printed on either Plain or Albumenized Papers.—Price 5s. per pint.

BLAND & LONG'S**SILICA SOAP,**

A powerful detergents Agent for the speedy removal of Photographic Stains.—Price in pots, 1s., 2s., and 3s. each, secured by a green label with name and address.

ESTIMATES

OP

Complete Sets of Photographic Apparatus.

FOR THE COLLODION PROCESS ONLY.

No. 1. Complete Set of Photographic Apparatus, for
taking positive portraits and views up to $4\frac{1}{4}$ by
 $3\frac{1}{4}$ inches, in wood case, complete, with tripod
stand

f . . d

3 0 0

This apparatus is of the most simple kind, and consists of a compound achromatic lens (tested); walnut camera and back; 2 plate holders and focussing screen; mahogany tripod stand; scales and weights; porcelain pan; gutta percha bath and dipper; filtering paper; glass funnel; graduated measure; 1 dozen plates in box; and bottles containing 6 oz. of nitrate of silver bath, 3 oz. positive collodion, 1 pint of developing solution, 1 oz. cyanide potassium, 1 oz. of Bland and Long's transparent varnish, with full directions for use.

No. 2. Complete Set of Photographic Apparatus, for
taking portraits up to $6\frac{1}{2}$ by $4\frac{3}{4}$, the contents of
box being the same as No. 1, only in larger
quantities

5 5 0

No. 3. Complete Set of Photographic Apparatus, for
taking portraits and views $4\frac{1}{4}$ by $3\frac{1}{4}$ inches;
consisting of a sliding body camera, in walnut
wood; 1 single back, for plates $4\frac{1}{4}$ by $3\frac{1}{4}$ inches,
fitted with compound achromatic lens of superior
construction; reversing frame; glass plates in
box; gutta percha bath and dipper; porcelain
pan; levelling stand; scales and weights; glass
graduated measure; filtering paper and funnel;
Canson's positive paper, for printing; camera
tripod stand; and chemicals, consisting of 1 oz.
nitrate of silver, $\frac{1}{2}$ dram of pyrogallic acid, 1 oz.
glacial acetic acid, 4 oz. iodized collodion, hypo-
sulphite of soda, 1 oz. varnish; the whole packed
in case, with lock and handle

5 5 0

No. 4. Complete Set of Photographic Apparatus, for
portraits $4\frac{1}{4}$ by $3\frac{1}{4}$ inches, same as No. 3, but
with best French-polished mahogany camera, and
compound achromatic lens, of Bland and Long's
own make, in which the chemical and optical
foci are warranted to coincide; chemicals, stand,
&c., complete

7 7 0

£ s. d.

No. 5. Complete Set of Photographic Apparatus, consisting of sliding body camera of superior construction, with dark slide and loose frames for plates 5 by 4 inches, and 4 by 3 inches; Compound achromatic lens, mounted in handsome brass front, of Bland and Long's own make, the chemical and optical foci being perfectly coincident; glass plates; plate boxes; gutta percha bath and dipper; washing pan; levelling stand; reversing frame; glass measures; scales and weights, with glass pans; with all the necessary chemicals, papers, tripod stand, &c., packed in case, complete, with lock and key 10 10 0

No. 6. Complete Set of Photographic Apparatus, consisting of sliding body camera, best make; dark slide, with 3 loose frames for plates 6 by 5 inches, 5 by 4 inches, and 4 by 3 inches, fitted with Compound achromatic lens, mounted in handsome brass front, of Bland and Long's own make, the chemical and optical foci being absolutely coincident; glass plates; 3 plate boxes; gutta percha bath and dipper; 2 washing pans; levelling stand; reversing frame; glass measures; scales and weights; funnel; filter ring; supply of positive paper; bibulous paper; tripod stand, with brass top; with all requisite chemicals, in stoppered bottles, and materials; the whole packed in case, with lock and key 15 0 0

No. 7. Complete Set of Apparatus for Collodion pictures, $8\frac{1}{2}$ by $6\frac{1}{2}$ inches, 6 by 5 inches, and 5 by 4 inches; comprising mahogany sliding body camera, of best construction, with one dark slide, and three loose frames for glass plates, ground focussing glass, &c., fitted with double-combination achromatic lens, of Bland and Long's own manufacture, in which the chemical and optical foci are perfectly coincident, mounted in handsome brass front, with rack and pinion adjustment; 1 doz. plates, $8\frac{1}{2}$ by $6\frac{1}{2}$ inches, in box; 1 doz. plates, 6 by 5 inches, in box; 1 doz. plates, 5 by 4 inches, in box; gutta percha bath and dipper; 2 washing pans; levelling stand; reversing frame; glass measures; scales and weights; with a full supply of all the necessary chemicals, tripod stand, &c., complete, packed in stout case, with lock and key 30 0 0

ESTIMATES
 OF
Complete Sets of Photographic Apparatus.
FOR THE PAPER PROCESSES ONLY.

L s. d.

No. 1. Complete Set of Photographic Apparatus, for taking pictures by the Calotype or waxed-paper process, 6 by 5 inches; consisting of mahogany camera, fitted with single achromatic lens, $1\frac{3}{4}$ inches diameter, mounted in brass front; single dark slide for prepared paper; porcelain dish; preparing board; glass rod; reversing frame; 1 quire of photographic paper; 1 quire of bibulous ditto; set of scales and weights; 1 oz. measure; minim ditto; tripod stand; and all the necessary chemicals, &c., in stoppered bottles; the whole packed in case, with lock and key 5 5 0

No. 2. Complete Set of Photographic Apparatus, for taking pictures by the calotype or the waxed-paper process, 7 by 6 inches; consisting of mahogany camera, fitted with single achromatic view lens, $2\frac{1}{4}$ inches diameter, mounted in brass front; single dark slide for prepared paper; ground focussing glass; 2 porcelain dishes; board for the preparation of paper; 2 glass rods; reversing or printing frame; tripod stand for supporting the camera; 2 quires of photographic paper; 2 quires of bibulous ditto; scales and weights; glass measures; funnel; with all the necessary chemicals, &c.; the whole packed in case, with lock and key 6 16 6

No. 3. Complete Set of Photographic Apparatus, for taking pictures 9 by 7 inches, by either the calotype or waxed paper process; comprising mahogany camera, fitted with single achromatic view lens, $2\frac{5}{8}$ inches diameter, mounted in brass front; 1 double back for prepared paper; ground focussing screen; tripod stand for supporting camera; 2 porcelain dishes; preparing board; 2 glass rods; reversing or printing frame, for obtaining positives; 2 quires of photographic paper; 2 quires of bibulous ditto; scales and weights; glass measures and funnels; with all the necessary chemicals, complete; the whole packed in case, with lock and key 10 10 0

£ s. d

No. 4. **Portable Photographic Apparatus**, consisting of a folding camera of best construction, with ground focussing glass; 1 double back for prepared paper; fitted with single achromatic lens, $2\frac{1}{4}$ inches diameter, mounted in brass front, sliding adjustment for foreground and sky, adapted for taking pictures by the calotype or waxed-paper process, 7 by 6 inches; tripod stand for supporting the camera; 2 porcelain washing pans; preparing board; 2 glass rods; reversing frame; glass graduated measures and funnels; 2 quires of photographic paper; 1 quire of albumenized ditto; 1 quire of bibulous ditto; scales and weights, with glass pans; and a full supply of chemicals; the camera and lens packed in leather swing case, for convenience of carriage; the chemicals and other apparatus in case, with lock and key.

13 13 0

No. 5. **Portable Photographic Apparatus**, comprising folding camera of best construction; ground focussing glass; 1 double back for prepared paper 9 by 7 inches; fitted with single achromatic view lens, $2\frac{5}{8}$ inches diameter, mounted in brass front, with adjustment for foreground and sky; tripod stand, for supporting the camera; preparing board; 2 glass rods; 1 ounce glass graduated measure; minim ditto; 2 glass funnels; 2 porcelain pans for washing paper; reversing or printing frame; set of scales and weights, with glass pans; 3 quires of photographic paper; 2 quires of albumenized ditto; 2 quires of bibulous ditto; with a full supply of chemicals, &c. The camera, with back and lens, packed in leather sling case, for convenience of carriage; the chemicals and other apparatus in strong case, with lock and key.

16 16 0

No. 6. **Portable Photographic Apparatus**, consisting of folding camera of best construction, ground focussing glass; 1 double back for prepared paper, 11 by 9 inches; fitted with single achromatic view lens, 3 inches diameter, mounted in brass front with rackwork adjustment; sliding front to camera, for adjusting proportion of foreground and sky; tripod stand for supporting the camera; 2 porcelain pans for washing paper; preparing board; 2 glass rods; glass graduated measures; glass funnels; reversing or printing

	L	s.	d.
frame; set of scales and weights, with glass pans; 3 quires of photographic paper; 3 quires of albumenized ditto; 3 quires of bibulous ditto; with a full supply of chemicals for the calotype or waxed-paper process; the camera and lens packed in leather sling case, for convenience of carriage; the chemicals and other apparatus in strong case, with lock and key	22	10	0

ESTIMATES

FOR

Complete Sets of Photographic Apparatus.

FOR THE COLLODION AND PAPER PROCESSES COMBINED.

No. 1. Complete Set of Photographic Apparatus, for taking portraits by the collodion process, 4 $\frac{1}{2}$ by 3 $\frac{1}{2}$ inches, and views or landscapes 6 by 5 inches, on either calotype or waxed-paper; comprising a sliding body French-polished mahogany camera, with 1 single back for paper, and 1 single back with loose frames for collodion plates; fitted with compound achromatic lens, of Bland and Long's own make, which is adapted for either portraits or views; tripod stand; scales and weights; levelling stand; gutta percha bath and dipper; 1 dozen glass plates in box, 4 $\frac{1}{2}$ by 3 $\frac{1}{2}$ inches; 1 dozen ditto in box, 3 $\frac{1}{4}$ by 2 $\frac{3}{4}$ inches; reversing or printing frame; 2 glass graduated measures; 2 funnels; glass rods; preparing board; 2 porcelain washing pans; 1 quire of photographic paper; 1 quire of albumenized ditto; 1 quire of bibulous ditto; and a supply of chemicals both for collodion, and calotype or waxed-paper process; the whole packed in case, with lock and key 11 10 6

No. 2. Complete Set of Photographic Apparatus, for taking portraits on collodion 5 by 4 inches, and views or landscapes 7 by 6 inches, on either calotype or waxed-paper; consisting of mahogany French-polished sliding body camera, with 1 single back for paper 7 by 6 inches, and 1 single back for collodion plates; 2 loose frames, 5 by 4

£ s. d.

inches, and 4 by 3 inches; fitted with compound achromatic lens, of Bland and Long's own make, which is adapted for either portraits or views; tripod stand; scales and weights; levelling stand; gutta percha bath and dipper; 1 dozen glass plates in box, 5 by 4 inches; 1 dozen ditto in box, 4 by 3 inches; reversing frame; 2 glass graduated measures; preparing board; 2 pans for washing; 1 quire of photographic paper; 1 quire of albumenized ditto; 1 quire of bibulous ditto; 2 glass funnels; and a good supply of chemicals in stoppered bottles, consisting of nitrate of silver, iodide of potassium, gallic acid, acetic acid, varnish, hyposulphite of soda, iodized collodion, pyrogallic acid, chloride of sodium, cyanide of potassium, nitrate of silver bath, &c.; the whole packed in case complete, with lock and key

15 0 0

No. 3. Ditto, ditto, same as above, but with portable folding camera, of best construction, with one double back for paper, and one single back for collodion plates

16 5 0

No. 4. **Complete Set of Photographic Apparatus**, for taking portraits on collodion 6 by 5 inches, and views or landscapes 9 by 7 inches, on calotype or waxed paper; comprising a mahogany French-polished sliding body camera, with one single back for paper 9 by 7 inches, and one single back with two loose frames for collodion plates 6 by 5 inches, and 5 by 4 inches, fitted with compound achromatic lens of Bland and Long's own make, which is adapted for both portraits and views; tripod stand; scales and weights; levelling stand; gutta percha bath and dipper; 1 dozen glass plates, 6 by 5 inches, in box; 1 dozen ditto, 5 by 4 inches, in box; reversing frame; 2 glass graduated measures; preparing board; glass rods: 2 porcelain washing pans; 2 quires of photographic paper; 2 quires of albumenized ditto; 2 quires of bibulous ditto; 2 glass funnels; and a good supply of chemicals required in both processes; the whole carefully packed in case, with lock and key

19 19 0

No. 5. Ditto, ditto, same apparatus, &c., as above, but with portable folding camera of best construction, with one double back for paper, and one single back for collodion plates

21 0 0

No. 6. Complete Set of Photographic Apparatus, for taking portraits on collodion plates $8\frac{1}{2}$ by $6\frac{1}{2}$ inches, and views or landscapes 11 by 9 inches, on either calotype or waxed papers. Comprising mahogany sliding body camera, French-polished, with one single back for paper 11 by 9 inches, and one single back for glass plates, with two loose frames $8\frac{1}{2}$ by $6\frac{1}{2}$ inches, and 6 by 5 inches; fitted with compound achromatic lens, of Bland and Long's own make, which is adapted for either portraits or views; tripod stand; scales and weights; levelling stand; gutta percha bath and dipper; 1 dozen plates in box, $8\frac{1}{2}$ by $6\frac{1}{2}$ inches; 1 dozen ditto 6 by 5 inches, in box; reversing frame; 2 glass graduated measures; preparing board; 2 glass rods; 2 pans for washing; 3 quires of photographic paper; 3 quires of albumenized ditto; 3 quires of bibulous ditto; 2 funnels; and an ample supply of all the requisite chemicals for both processes, in stoppered bottles; the whole packed in strong case, with lock and key

£ s. d.

35 0 0

No. 7. Ditto, ditto, same as above, but with portable folding camera of best construction, with one double back for paper, and one single back for collodion plates

37 0 0

Estimates given for complete Sets, for any single process, or combination of processes, not enumerated in the above list.

ESTIMATES FOR COMPLETE SETS OF DAGUERREOTYPE APPARATUS.

(The following prices do not include a supply of silvered plates.)

	£	s.	d.
No. 1. Set of Daguerreotype Apparatus, for taking pictures $4\frac{1}{2}$ by $3\frac{1}{2}$ inches, $3\frac{1}{2}$ by $2\frac{3}{4}$ inches, and $2\frac{1}{2}$ by 2 inches; consisting of No. 1 walnut sliding body camera, with single achromatic lens, mounted in brass front, dark slides for plates, ground focussing glass, &c.; bromine and iodine pans, with air-tight glass covers, and set of frames; 3 plate holders; 3 plate boxes; 2 velvet polishing buffs; mercury box, with thermometer; porcelain washing tray; gilding stand, with levelling screws; improved pliers; glass spirit lamp; funnel; filtering paper; with all the necessary chemicals and polishing materials, in hard wood boxes. The whole packed in two stained cases, with locks and handles	6	6	0
Ditto, of superior construction	10	10	0
If with compound achromatic lens, and double iodine and bromine boxes, forming a more complete set of apparatus	15	15	0
No. 2. Complete Set of Daguerreotype Apparatus, for portraits from $2\frac{3}{4}$ by $3\frac{1}{4}$ inches, up to $6\frac{1}{2}$ by $4\frac{3}{4}$ inches, with best compound achromatic lens, mounted in handsome brass front, rackwork adjustment; sliding body camera of mahogany, with dark frames, focussing glass, &c.; improved compound iodine and bromine box; 2 polishing buffs; 4 plate boxes; 4 polishing blocks; head rest; mercury box, with thermometer; washing tray; gilding stand; improved pliers; spirit lamp; funnel and filter paper; hard wood boxes, containing polishing materials, with all the necessary chemicals and materials. The whole packed in two stained wood cases, with locks and handles	23	0	0
No. 3. Complete Set of Daguerreotype Apparatus, for taking pictures up to $8\frac{1}{2}$ by $6\frac{1}{2}$ inches; consisting of sliding body camera, with dark frames, focussing glass, &c.; compound achromatic lens,			

mounted in handsome brass front, with rackwork adjustment; compound iodine and bromine apparatus, complete; polishing buffs; plate boxes; polishing blocks; camera stand; head rest; mercury box; washing pans; gilding stand; improved pliers; spirit lamp; funnels; polishing boxes; filtering paper, &c.; with a good supply of all the necessary chemicals, materials, &c. The whole carefully packed in two cases, with locks and handles 40 0 0

No. 4. Complete Set of Daguerreotye Apparatus, suitable for a Public Institution or a professional Photographer; comprising large camera, with necessary slides for plates, ground focussing glass, combination achromatic lens, mounted in handsome brass front, with rackwork adjustment, for taking portraits, groups, or views up to $8\frac{1}{2}$ by $6\frac{1}{2}$ inches; also a small camera, with short focus double combination achromatic lens of large aperture, for taking portraits up to $4\frac{1}{4}$ by $3\frac{1}{4}$ inches in dull weather: polishing lathe, with circular buffs; 3 hand buffs; set of metal plate holders; heating stand: large bromine and iodine apparatus; set of plate boxes; camera stand; head rest, for chair; also head rest with heavy iron foot, for full length portraits; mercury box, for different sized plates; lamp, with yellow glass shade; one gallon still, and worm tub complete; gilding stands; stoneware filter; porcelain dishes and filter stands; funnels and filtering paper; spirit lamps; Daguerreotype colours and brushes; india-rubber bottle; glass measures: 2 painted backgrounds; with a full supply of chemicals, polishing materials, &c., complete 110 0 0

SPECTACLES.

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